

10/789,276

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PASSWORD:

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NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	FEB 25	CA/CAPLUS - Russian Agency for Patents and Trademarks (ROSPATENT) added to list of core patent offices covered
NEWS	4	FEB 28	PATDPAFULL - New display fields provide for legal status data from INPADOC
NEWS	5	FEB 28	BABS - Current-awareness alerts (SDIs) available
NEWS	6	FEB 28	MEDLINE/LMEDLINE reloaded
NEWS	7	MAR 02	GBFULL: New full-text patent database on STN
NEWS	8	MAR 03	REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS	9	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS	10	MAR 22	KOREAPAT now updated monthly; patent information enhanced
NEWS	11	MAR 22	Original IDE display format returns to REGISTRY/ZREGISTRY
NEWS	12	MAR 22	PATDPASPC - New patent database available
NEWS	13	MAR 22	REGISTRY/ZREGISTRY enhanced with experimental property tags
NEWS	14	APR 04	EPFULL enhanced with additional patent information and new fields
NEWS	15	APR 04	EMBASE - Database reloaded and enhanced
NEWS	16	APR 18	New CAS Information Use Policies available online
NEWS	17	APR 25	Patent searching, including current-awareness alerts (SDIs), based on application date in CA/CAPLUS and USPATFULL/USPAT2 may be affected by a change in filing date for U.S. applications.
NEWS EXPRESS			JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
NEWS INTER			General Internet Information
NEWS LOGIN			Welcome Banner and News Items
NEWS PHONE			Direct Dial and Telecommunication Network Access to STN
NEWS WWW			CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 19:41:13 ON 26 APR 2005

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 19:41:30 ON 26 APR 2005

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 25 APR 2005 HIGHEST RN 849177-50-0

DICTIONARY FILE UPDATES: 25 APR 2005 HIGHEST RN 849177-50-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

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\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

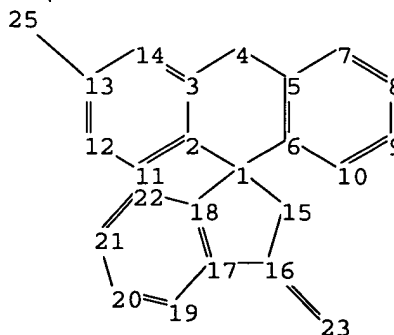
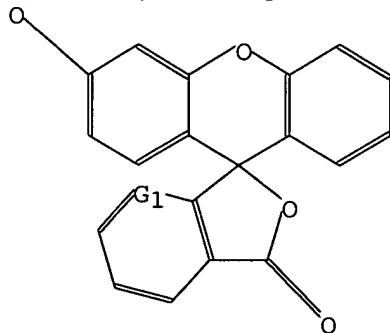
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10789276.str



chain nodes :

10/789,276

23 25

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

chain bonds :

13-25 16-23

ring bonds :

1-2 1-6 1-15 1-18 2-3 2-11 3-4 3-14 4-5 5-6 5-7 6-10 7-8 8-9 9-10

11-12 12-13 13-14 15-16 16-17 17-18 17-19 18-22 19-20 20-21 21-22

exact/norm bonds :

1-2 1-6 1-15 1-18 3-4 4-5 13-25 15-16 16-17 16-23 17-18 17-19 18-22

19-20 20-21 21-22

normalized bonds :

2-3 2-11 3-14 5-6 5-7 6-10 7-8 8-9 9-10 11-12 12-13 13-14

isolated ring systems :

containing 1 :

G1:C,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom

11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom

20:Atom 21:Atom 22:Atom 23:CLASS 25:CLASS

L1 STRUCTURE UPLOADED

=> s l1

SAMPLE SEARCH INITIATED 19:41:49 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 429 TO ITERATE

100.0% PROCESSED 429 ITERATIONS

50 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

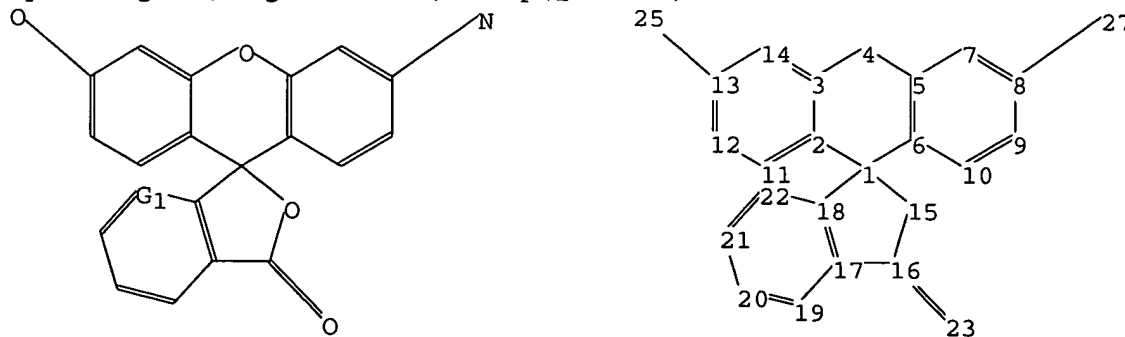
PROJECTED ITERATIONS: 7338 TO 9822

PROJECTED ANSWERS: 6930 TO 9350

L2 50 SEA SSS SAM L1

=>

Uploading C:\Program Files\Stnexp\Queries\107892761.str



10/789,276

chain nodes :

23 25 27

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

chain bonds :

8-27 13-25 16-23

ring bonds :

1-2 1-6 1-15 1-18 2-3 2-11 3-4 3-14 4-5 5-6 5-7 6-10 7-8 8-9 9-10

11-12 12-13 13-14 15-16 16-17 17-18 17-19 18-22 19-20 20-21 21-22

exact/norm bonds :

1-2 1-6 1-15 1-18 3-4 4-5 8-27 13-25 15-16 16-17 16-23 17-18 17-19

18-22 19-20 20-21 21-22

normalized bonds :

2-3 2-11 3-14 5-6 5-7 6-10 7-8 8-9 9-10 11-12 12-13 13-14

isolated ring systems :

containing 1 :

G1:C,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom

11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom

20:Atom 21:Atom 22:Atom 23:CLASS 25:CLASS 27:CLASS

L3 STRUCTURE UPLOADED

=> s 13

SAMPLE SEARCH INITIATED 19:43:05 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 44 TO ITERATE

100.0% PROCESSED 44 ITERATIONS

11 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 483 TO 1277

PROJECTED ANSWERS: 22 TO 418

L4 11 SEA SSS SAM L3

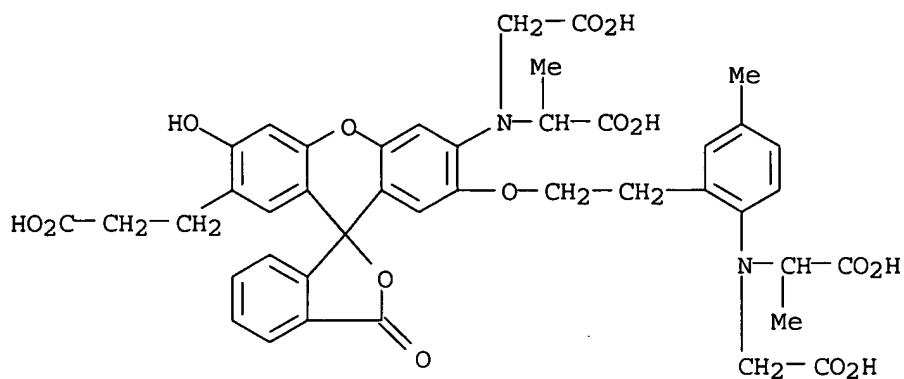
=> d scan

L4 11 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN

IN Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-2'-propanoic acid,  
6'-[(1-carboxyethyl)(carboxymethyl)amino]-7'-[2-[2-[(1-  
carboxyethyl)(carboxymethyl)amino]-5-methylphenyl]ethoxy]-3'-hydroxy-3-oxo-  
(9CI)

MF C42 H40 N2 O15

10/789,276

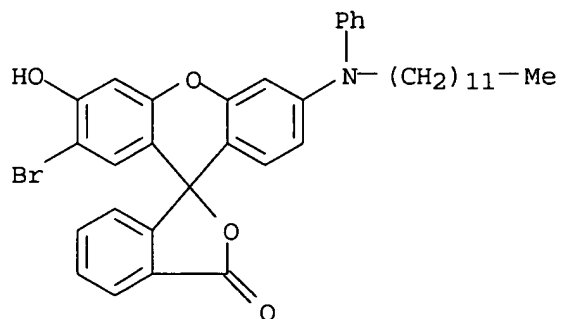


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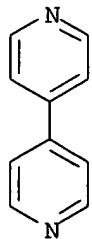
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):5

L4 11 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN  
 IN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 2'-bromo-6'-  
 (dodecylphenylamino)-3'-hydroxy-, compd. with 4,4'-bipyridine (2:1) (9CI)  
 MF C38 H40 Br N O4 . 1/2 C10 H8 N2

CM 1

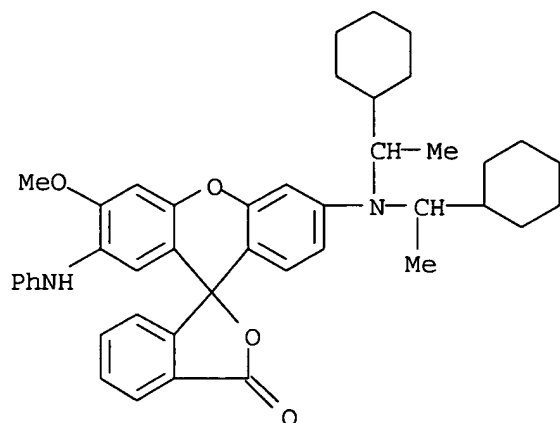


CM 2



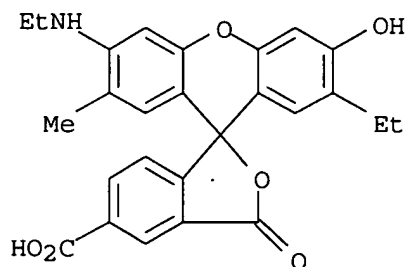
10/789,276

L4 11 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN  
IN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 6'-[bis(1-cyclohexylethyl)amino]-3'-methoxy-2'-(phenylamino)- (9CI)  
MF C43 H48 N2 O4



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L4 11 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN  
IN Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-5-carboxylic acid, 2'-ethyl-6'-(ethylamino)-3'-hydroxy-7'-methyl-3-oxo- (9CI)  
MF C26 H23 N O6

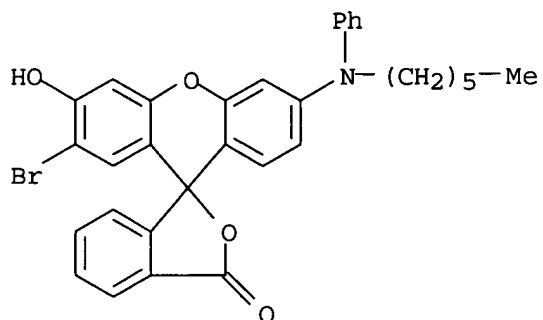


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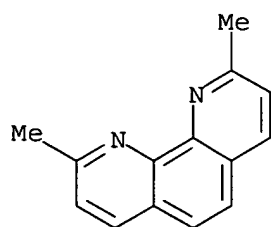
L4 11 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN  
IN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 2'-bromo-6'-(hexylphenylamino)-3'-hydroxy-, compd. with 2,9-dimethyl-1,10-phenanthroline (1:1) (9CI)  
MF C32 H28 Br N O4 . C14 H12 N2

CM 1

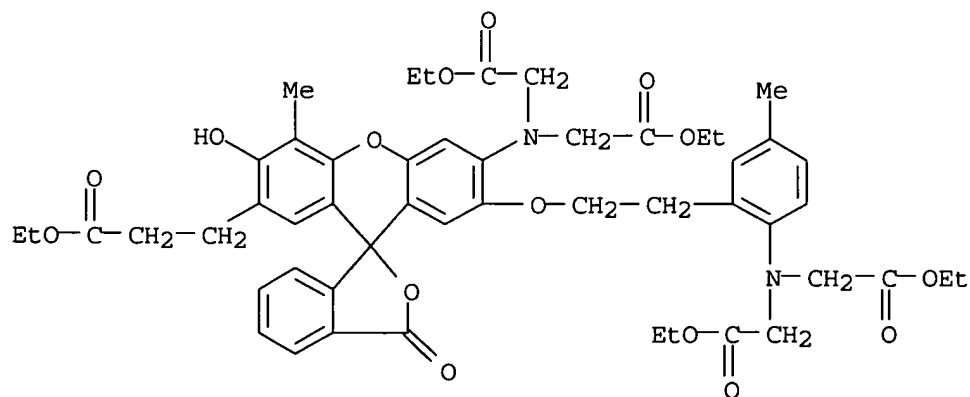
10/789,276



CM 2



L4 11 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN  
 IN Spiro[isobenzofuran-1(3H), 9']-[9H]xanthene]-2'-propanoic acid,  
 6'-[bis(2-ethoxy-2-oxoethyl)amino]-7'-[2-[2-[bis(2-ethoxy-2-oxoethyl)amino]-5-methylphenyl]ethoxy]-3'-hydroxy-4'-methyl-3-oxo-, ethyl  
 ester (9CI)  
 MF C51 H58 N2 O15



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

10/789,276

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> s 13 ful

FULL SEARCH INITIATED 19:44:19 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 804 TO ITERATE

100.0% PROCESSED 804 ITERATIONS 214 ANSWERS  
SEARCH TIME: 00.00.01

L5 214 SEA SSS FUL L3

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	163.05	163.26

FILE 'CAPLUS' ENTERED AT 19:44:28 ON 26 APR 2005  
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FILE COVERS 1907 - 26 Apr 2005 VOL 142 ISS 18  
FILE LAST UPDATED: 25 Apr 2005 (20050425/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 15

L6 106 L5

=> d 16 ibib hitstr abs 106

L6 ANSWER 106 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1962:73970 CAPLUS  
DOCUMENT NUMBER: 56:73970  
ORIGINAL REFERENCE NO.: 56:14431i,14432h-i,14433a  
TITLE: Paper chromatography of dyes. IV. Paper chromatography and polarography of dye-metal coordination  
AUTHOR(S): Tajiri, Hiromi  
CORPORATE SOURCE: Osaka Custom-House  
SOURCE: Kogyo Kagaku Zasshi (1960), 63, 122-7  
CODEN: KGKZA7; ISSN: 0368-5462  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable  
IT 6359-29-1, 3H-Xanthene-2-carboxylic acid, 9-(o-carboxyphenyl)-6-

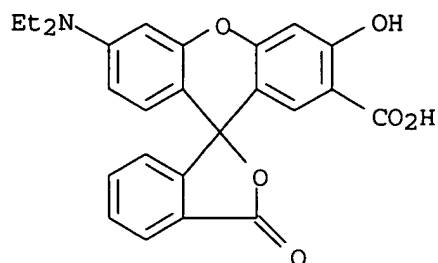


10/789,276

(diethylamino)-3-oxo-  
(chromatography of)

RN 6359-29-1 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-2'-carboxylic acid,  
6'-(diethylamino)-3'-hydroxy-3-oxo- (9CI) (CA INDEX NAME)



AB Paper chromatograms of 26 Cr-metalized dyes were compared with those of the starting non-metalized dyes. Suitable developing agents were 15% C<sub>5</sub>H<sub>5</sub>N, 60%HOAc, BuOH-C<sub>5</sub>H<sub>5</sub>N-H<sub>2</sub>O (5:3:5), and BuOH-HOAc-H<sub>2</sub>O(4:1:5). A minor portion of the dye combined with Cr is developed to give a different R<sub>f</sub> value from that of the original dye, though the major portion remains absorbed at the original spot. The dye having no combination with Cr leaves no absorbed color at the original spot. This fact serves for examination of the presence of degree of the combination between the dye and Cr, and for examination of the reaction time necessary and sufficient for the reaction of dye and Cr. Also, polarograms of these moralized dyes were compared with those of the nonmetalized dyes. The polarograms of the Cr complexes show a decrease in the wave height when the chromophore in the dye takes no part in the combination, or a shift of the half-wave potential to the neg. side when the chromophore takes part. The shape of the waves before and after the reaction indicates that the reaction of azo mordant dyes proceeds first at one of the OH radicals and the azo radical, then at the other OH radical. Similar studies were made on Al-metalized dyes.

=> d 16 ibib hitstr abs 1-105

L6 ANSWER 1 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:722950 CAPLUS

DOCUMENT NUMBER: 141:244924

TITLE: Dye compounds exhibiting different colors in crystalline form and in liquid form and their use in imaging members and imaging method

INVENTOR(S): Allen, Richard M.; Filosa, Michael P.; Telfer, Stephen J.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 9 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004171817	A1	20040902	US 2004-789600	20040227

US 2004176617	A1	20040909	US 2004-789276	20040227
US 2004176248	A1	20040909	US 2004-789648	20040227
WO 2004078874	A2	20040916	WO 2004-US5964	20040227
WO 2004078874	A3	20041104		
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WO 2004078875	A3	20041111		
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WO 2004078030	A2	20040916	WO 2004-US6109	20040227
WO 2004078030	A3	20041028		

10/789,276

WO 2004078030

B1 20041216

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US 2004191668

A1 20040930

US 2004-788963

20040227

US 2004204317

A1 20041014

US 2004-789566

20040227

PRIORITY APPLN. INFO.:

US 2003-451208P

P 20030228

OTHER SOURCE(S):

MARPAT 141:244924

IT 748803-05-6 748803-07-8 748803-09-0

748803-11-4 748803-13-6 748803-15-8

748803-17-0 748803-19-2 748803-21-6

748803-23-8 748803-26-1 748803-27-2

748803-28-3 748803-29-4 748803-30-7

748803-31-8 748803-32-9 748803-33-0

748803-34-1 748803-35-2 748803-36-3

748803-37-4 748803-38-5 748803-39-6

748803-40-9

RL: TEM (Technical or engineered material use); USES (Uses)

(dye compds. exhibiting different colors in crystalline form and in liquid form for imaging members).

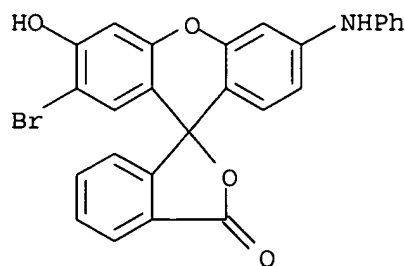
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CN Spiro[isobenzofuran-1(3H), 9'-[9H]xanthen]-3-one, 2'-bromo-3'-hydroxy-6'-(phenylamino)-, compd. with 4,4'-bipyridine (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-04-5

CMF C26 H16 Br N O4

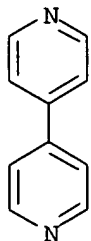


CM 2

CRN 553-26-4

CMF C10 H8 N2

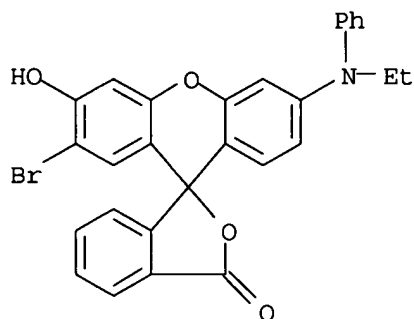
10/789,276



RN 748803-07-8 CAPLUS  
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 2'-bromo-6'-(ethylphenylamino)-3'-hydroxy-, compd. with 4,4'-bipyridine (2:1) (9CI)  
(CA INDEX NAME)

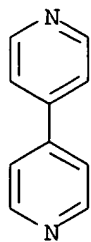
CM 1

CRN 748803-06-7  
CMF C28 H20 Br N O4



CM 2

CRN 553-26-4  
CMF C10 H8 N2



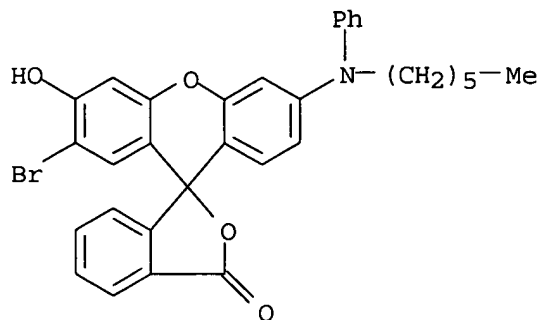
RN 748803-09-0 CAPLUS  
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 2'-bromo-6'-(hexylphenylamino)-3'-hydroxy-, compd. with 4,4'-bipyridine (2:1) (9CI)  
(CA INDEX NAME)

10/789,276

CM 1

CRN 748803-08-9

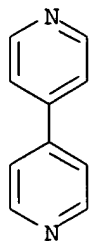
CMF C32 H28 Br N O4



CM 2

CRN 553-26-4

CMF C10 H8 N2



RN 748803-11-4 CAPLUS

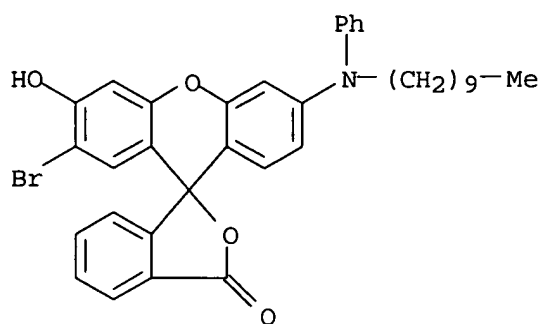
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 2'-bromo-6'-(decylphenylamino)-3'-hydroxy-, compd. with 4,4'-bipyridine (2:1) (9CI)  
(CA INDEX NAME)

CM 1

CRN 748803-10-3

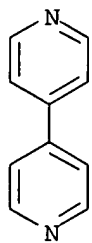
CMF C36 H36 Br N O4

10/789,276



CM 2

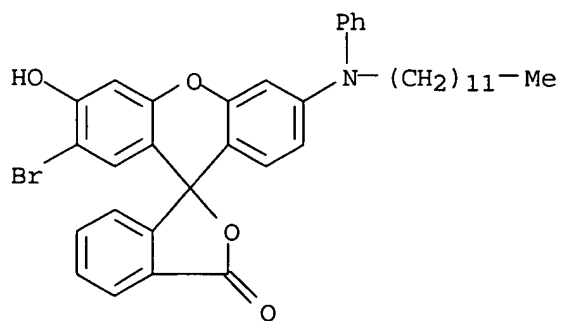
CRN 553-26-4  
CMF C10 H8 N2



RN 748803-13-6 CAPLUS  
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 2'-bromo-6'-(dodecylphenylamino)-3'-hydroxy-, compd. with 4,4'-bipyridine (2:1) (9CI) (CA INDEX NAME)

CM 1

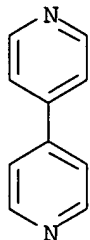
CRN 748803-12-5  
CMF C38 H40 Br N O4



CM 2

10/789,276

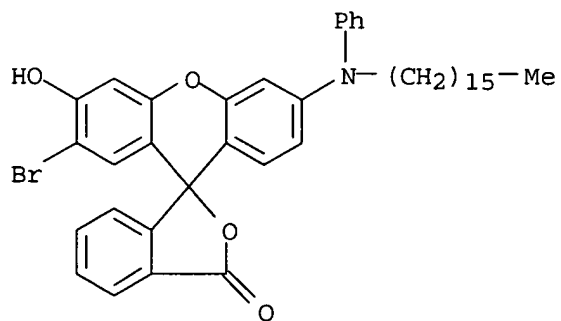
CRN 553-26-4  
CMF C10 H8 N2



RN 748803-15-8 CAPLUS  
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 2'-bromo-6'-(hexadecylphenylamino)-3'-hydroxy-, compd. with 4,4'-bipyridine (2:1) (9CI) (CA INDEX NAME)

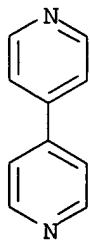
CM 1

CRN 748803-14-7  
CMF C42 H48 Br N O4



CM 2

CRN 553-26-4  
CMF C10 H8 N2



RN 748803-17-0 CAPLUS  
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 2'-bromo-6'-(hexadecylphenylamino)-3'-hydroxy-, compd. with 4,4'-bipyridine (2:1) (9CI) (CA INDEX NAME)

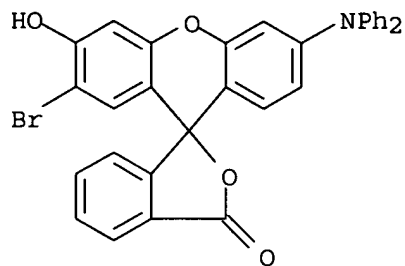
10/789,276

(diphenylamino)-3'-hydroxy-, compd. with 4,4'-bipyridine (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-16-9

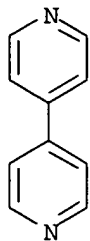
CMF C32 H20 Br N O4



CM 2

CRN 553-26-4

CMF C10 H8 N2



RN 748803-19-2 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]-, compd. with 4,4'-bipyridine (2:1) (9CI) (CA INDEX NAME)

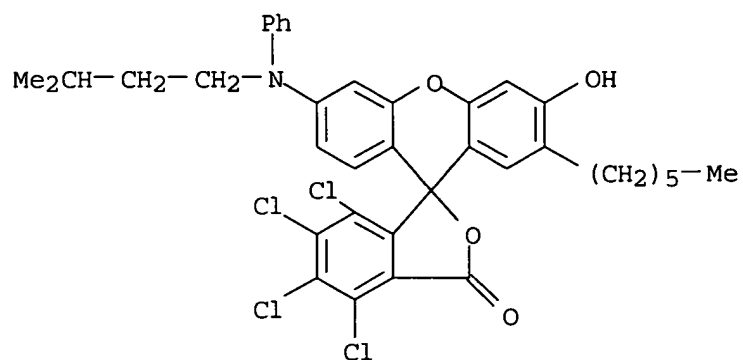
CM 1

CRN 748803-18-1

CMF C37 H35 Cl4 N O4

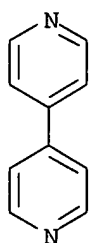


10/789,276



CM 2

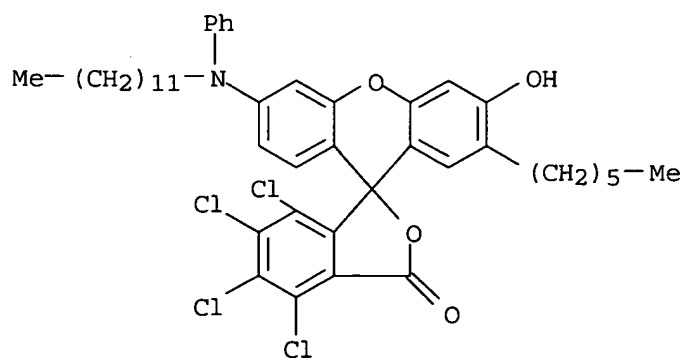
CRN 553-26-4  
CMF C10 H8 N2



RN 748803-21-6 CAPLUS  
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-6'-(dodecylphenylamino)-2'-hexyl-3'-hydroxy-, compd. with 4,4'-bipyridine (2:1) (9CI) (CA INDEX NAME)

CM 1

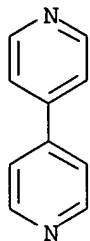
CRN 748803-20-5  
CMF C44 H49 Cl4 N O4



10/789,276

CM 2

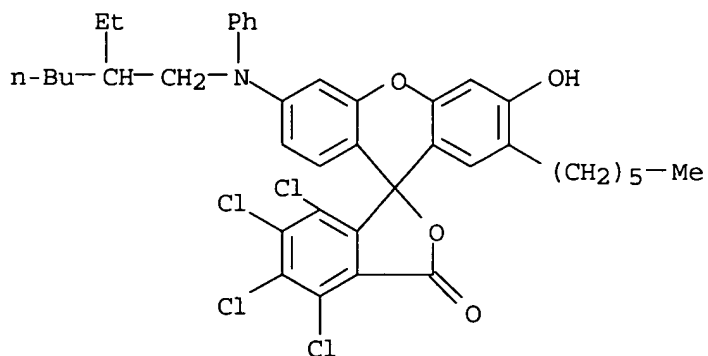
CRN 553-26-4  
CMF C10 H8 N2



RN 748803-23-8 CAPLUS  
CN Spiro[isobenzofuran-1(3H), 9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-6'-  
[(2-ethylhexyl)phenylamino]-2'-hexyl-3'-hydroxy-, compd. with  
4,4'-bipyridine (2:1) (9CI) (CA INDEX NAME)

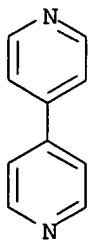
CM 1

CRN 748803-22-7  
CMF C40 H41 Cl4 N O4



CM 2

CRN 553-26-4  
CMF C10 H8 N2



10/789,276

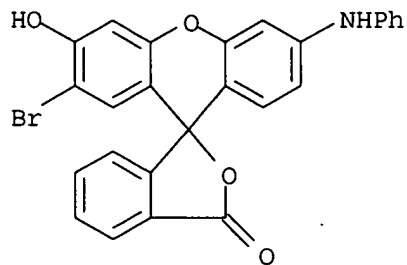
RN 748803-26-1 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 2'-bromo-3'-hydroxy-6'-(phenylamino)-, compd. with 2,9-dimethyl-1,10-phenanthroline (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-04-5

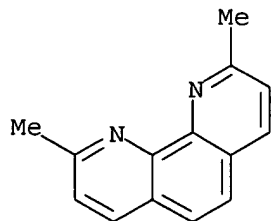
CMF C26 H16 Br N O4



CM 2

CRN 484-11-7

CMF C14 H12 N2



RN 748803-27-2 CAPLUS

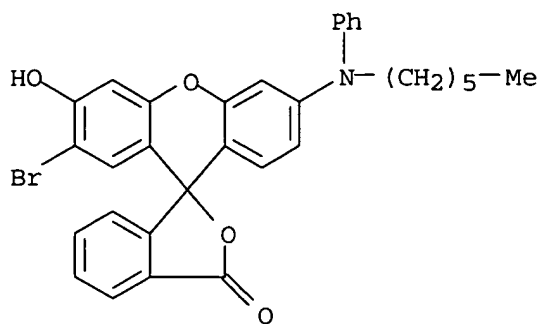
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 2'-bromo-6'-(hexylphenylamino)-3'-hydroxy-, compd. with 2,9-dimethyl-1,10-phenanthroline (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-08-9

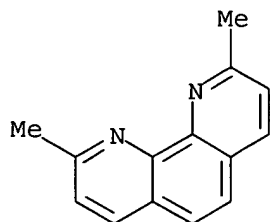
CMF C32 H28 Br N O4

10/789,276



CM 2

CRN 484-11-7  
CMF C14 H12 N2

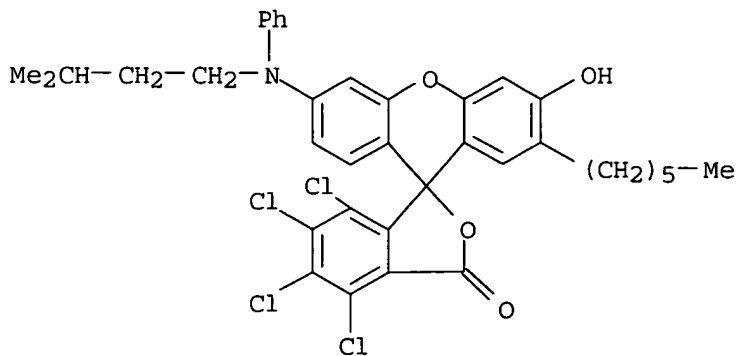


RN 748803-28-3 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]-, compd. with 2,9-dimethyl-1,10-phenanthroline (1:1) (9CI) (CA INDEX NAME)

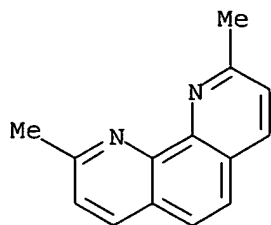
CM 1

CRN 748803-18-1  
CMF C37 H35 Cl4 N O4



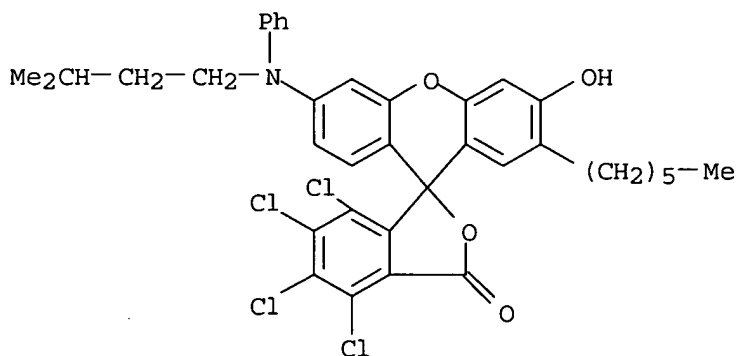
CM 2

CRN 484-11-7  
CMF C14 H12 N2



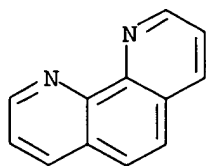
CM 1

CRN 748803-18-1  
CMF C37 H35 C14 N O4



CM 2

CRN 66-71-7  
CMF C12 H8 N2



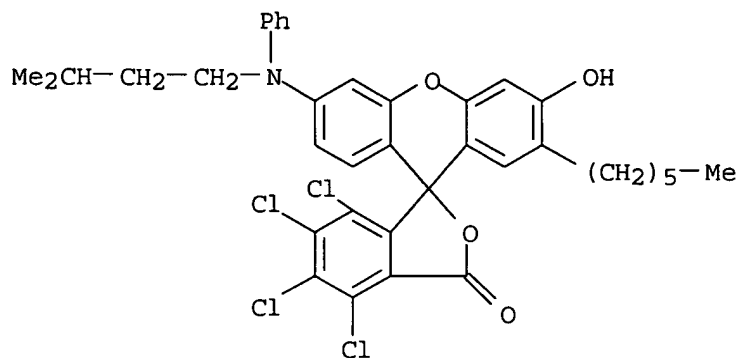
Page 21

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CM 1

CRN 748803-18-1

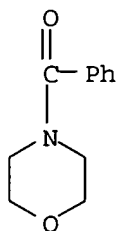
CMF C37 H35 Cl4 N O4



CM 2

CRN 1468-28-6

CMF C11 H13 N O2



RN 748803-31-8 CAPLUS

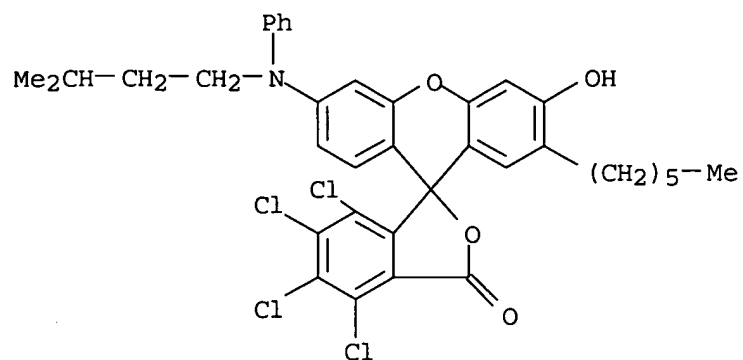
CN 1H-Indole, 1-acetyl-5-bromo-2,3-dihydro-, compd. with 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-18-1

CMF C37 H35 Cl4 N O4

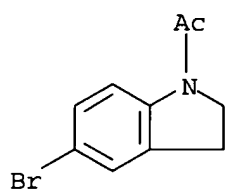
10/789,276



CM 2

CRN 22190-38-1

CMF C10 H10 Br N O



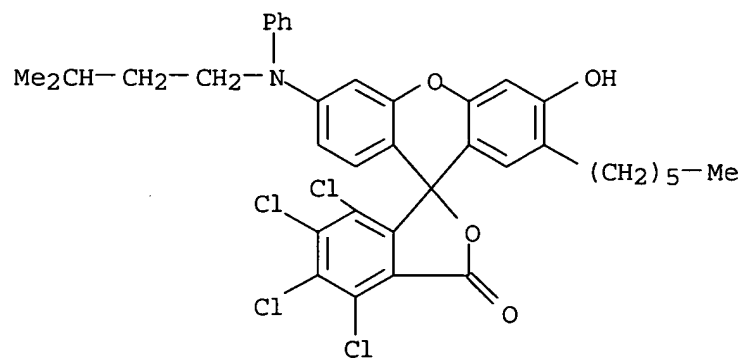
RN 748803-32-9 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]-, compd. with 1-(phenylmethyl)-1H-imidazole (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-18-1

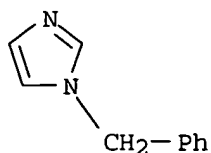
CMF C37 H35 Cl4 N O4



CM 2

10/789,276

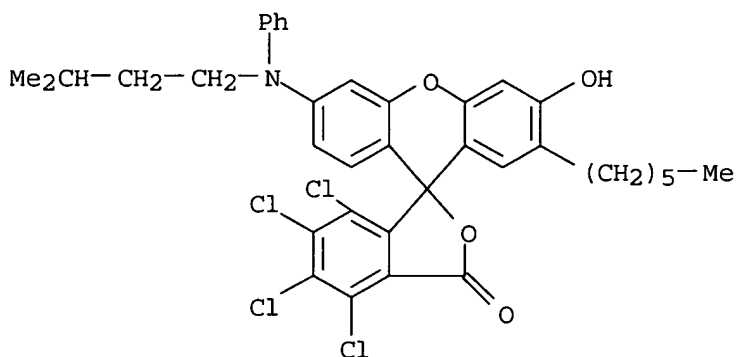
CRN 4238-71-5  
CMF C10 H10 N2



RN 748803-33-0 CAPLUS  
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]-, compd. with 5,6-dichloro-1-ethyl-2-methyl-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

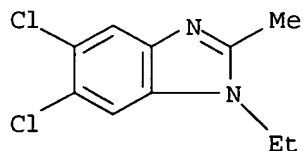
CM 1

CRN 748803-18-1  
CMF C37 H35 Cl4 N O4



CM 2

CRN 3237-62-5  
CMF C10 H10 Cl2 N2



RN 748803-34-1 CAPLUS  
CN 1H-Indole, 1-acetyl-2,3-dihydro-, compd. with 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one (1:1) (9CI) (CA INDEX NAME)

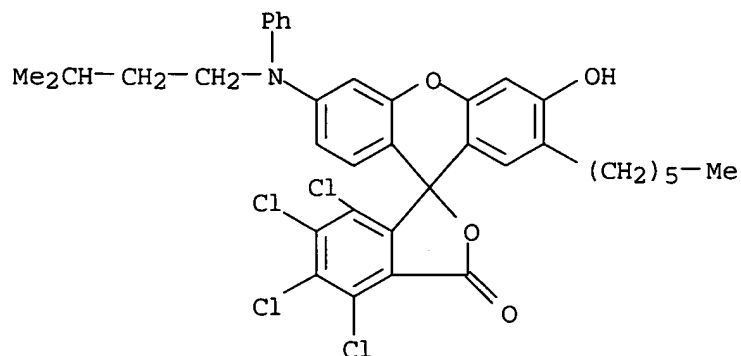
CM 1

CRN 748803-18-1



10/789,276

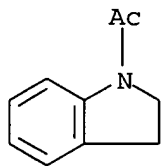
CMF C37 H35 Cl4 N O4



CM 2

CRN 16078-30-1

CMF C10 H11 N O



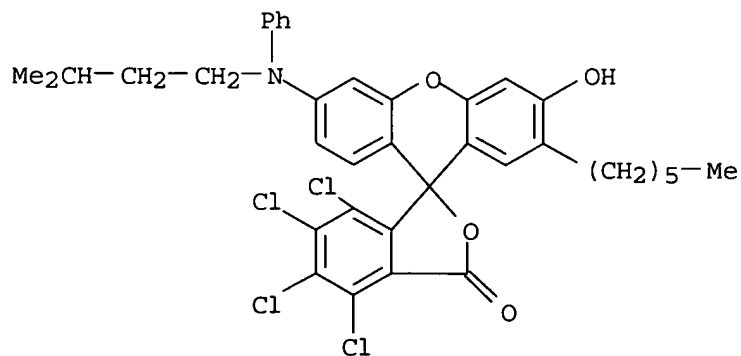
RN 748803-35-2 CAPLUS

CN 1,4-Benzenedicarboxamide, N,N,N',N'-tetraethyl-, compd. with  
4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]spiro[isobenzofuran-1(3H), 9'-[9H]xanthen]-3-one  
(1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-18-1

CMF C37 H35 Cl4 N O4

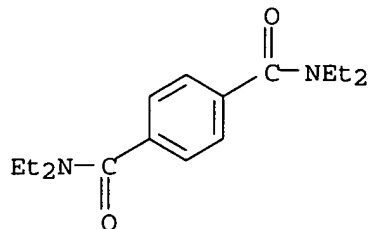


10/789,276

CM 2

CRN 15394-30-6

CMF C16 H24 N2 O2



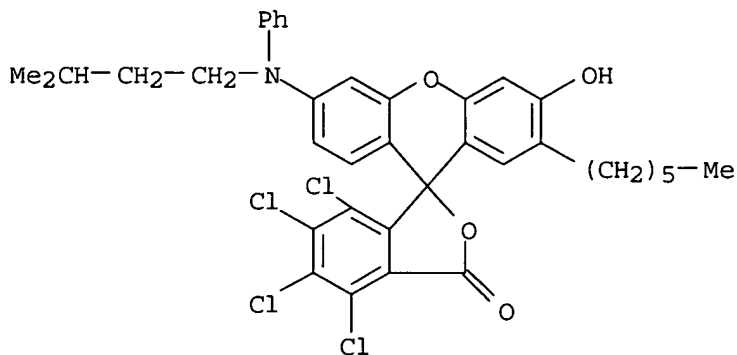
RN 748803-36-3 CAPLUS

CN 2-Pyrrolidinone, 1-phenyl-, compd. with 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-18-1

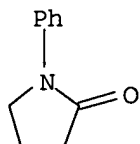
CMF C37 H35 Cl4 N O4



CM 2

CRN 4641-57-0

CMF C10 H11 N O



RN 748803-37-4 CAPLUS

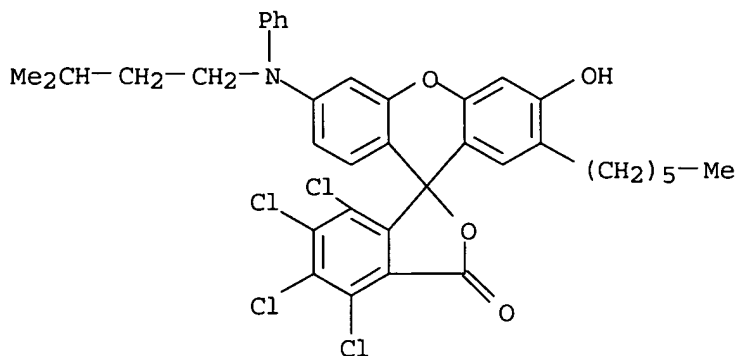
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]-, compd. with 1-ethyl-2-phenyl-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

10/789,276

CM 1

CRN 748803-18-1

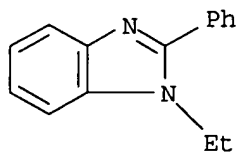
CMF C37 H35 Cl4 N O4



CM 2

CRN 6528-75-2

CMF C15 H14 N2



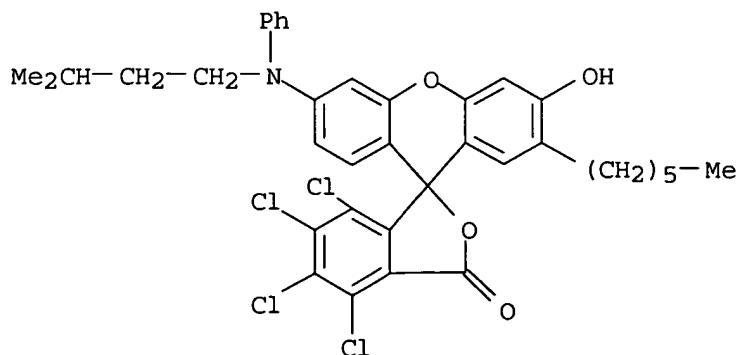
RN 748803-38-5 CAPLUS

CN Spiro[isobenzofuran-1(3H), 9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]-, compd. with 1-hexyl-2-phenyl-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-18-1

CMF C37 H35 Cl4 N O4

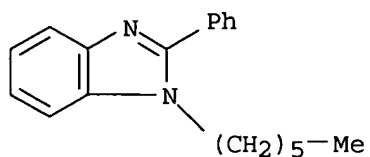


10/789,276

CM 2

CRN 476298-71-2

CMF C19 H22 N2



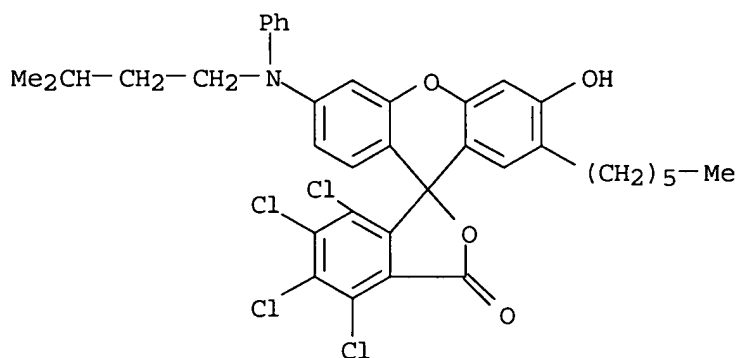
RN 748803-39-6 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]-, compd. with 4,4'-(1,2-ethenediyl)bis[pyridine] (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-18-1

CMF C37 H35 Cl4 N O4

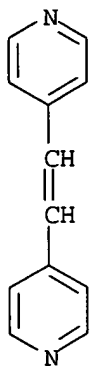


CM 2

CRN 1135-32-6

CMF C12 H10 N2

10/789,276



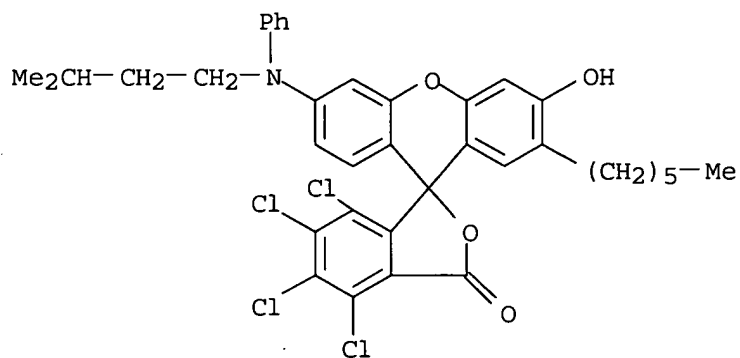
RN 748803-40-9 CAPLUS

CN 1H-Indole, 2,3-dihydro-1-(1-oxopropyl)-, compd. with 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-18-1

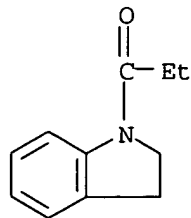
CMF C37 H35 Cl4 N O4



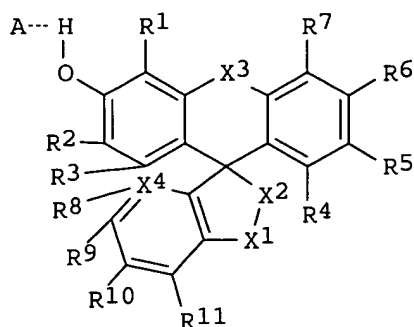
CM 2

CRN 56857-92-2

CMF C11 H13 N O



GI



I

AB The dye compound I (R1-5, R7 = H, (un)substituted alkyl, (un)substituted alkenyl, (un)substituted alkynyl, (un)substituted heterocycloalkyl, substituted carbonyl, acylamino, halogen, nitro, nitrilo, sulfonyl, aryl, substituted aryl, (un)substituted heteroaryl, (un)substituted oxygen, (un)substituted nitrogen, and (un)substituted sulfur; R6 = halogen, (un)substituted oxygen, (un)substituted nitrogen and (un)substituted sulfur; R8-11 = H, (un)substituted alkyl, (un)substituted alkenyl, (un)substituted alkynyl, (un)substituted heterocycloalkyl, substituted carbonyl, acylamino, halogen, nitro, nitrilo, sulfonyl, aryl, substituted aryl, (un)substituted heteroaryl, (un)substituted oxygen, (un)substituted nitrogen and (un)substituted sulfur; X1 = carbonyl, methylene, substituted methylene and sulfonyl; X2 = oxygen, (un)substituted nitrogen; X3 = oxygen, sulfur and (un)substituted nitrogen; X4 = carbon, nitrogen; and A = hydrogen-bond accepting group) are formed between hydrogen bond acceptors and phenolic dye compds. The imaging method comprises (a) providing an imaging member comprising a first image-forming layer including the dye compound in the crystalline form; and (b) converting at least a portion of the compound to the liquid form in an imagewise pattern whereby an image is formed.

L6 ANSWER 32 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1996:719037 CAPLUS  
 DOCUMENT NUMBER: 126:86521  
 TITLE: Haloalkyl derivatives of blocked reporter molecules and their use in analysis of metabolic activity in cells  
 INVENTOR(S): Mao, Fei; Sabnis, Ram; Naleway, John; Olson, Nels; Haugland, Richard P.  
 PATENT ASSIGNEE(S): Molecular Probes, Inc., USA  
 SOURCE: U.S., 20 pp., .Cont.-in-Part of US 5362628  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5576424	A	19961119	US 1994-336285	19941108
US 5362628	A	19941108	US 1993-26633	19930305

10/789,276

US 38723	E	20050412	US 1997-910090	19970812
PRIORITY APPLN. INFO.:			US 1991-749256	B1 19910823
			US 1993-26633	A2 19930305

OTHER SOURCE(S): MARPAT 126:86521

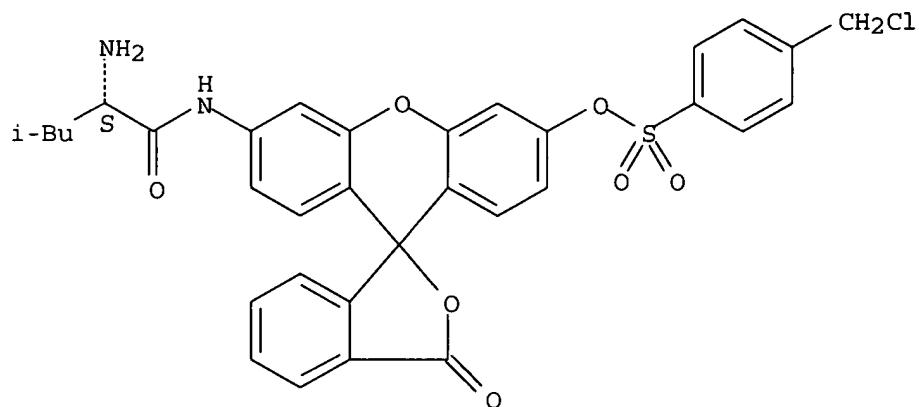
IT 185195-71-5P 185195-76-0P 185195-77-1P

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)  
(haloalkyl derivs. of blocked reporter mols. and their use in anal. of metabolic activity in cells)

RN 185195-71-5 CAPLUS

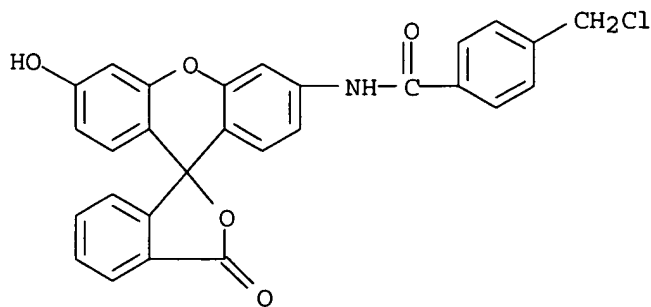
CN Benzenesulfonic acid, 4-(chloromethyl)-, 6'-[(2-amino-4-methyl-1-oxopentyl)amino]-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3'-yl ester, (2S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 185195-76-0 CAPLUS

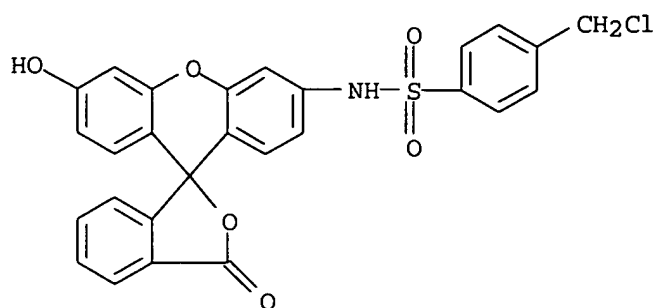
CN Benzamide, 4-(chloromethyl)-N-(6'-hydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3'-yl)-(9CI) (CA INDEX NAME)



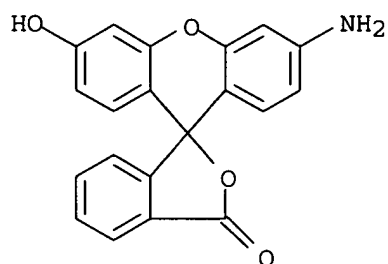
RN 185195-77-1 CAPLUS

CN Benzenesulfonamide, 4-(chloromethyl)-N-(6'-hydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3'-yl)-(9CI) (CA INDEX NAME)

10/789,276



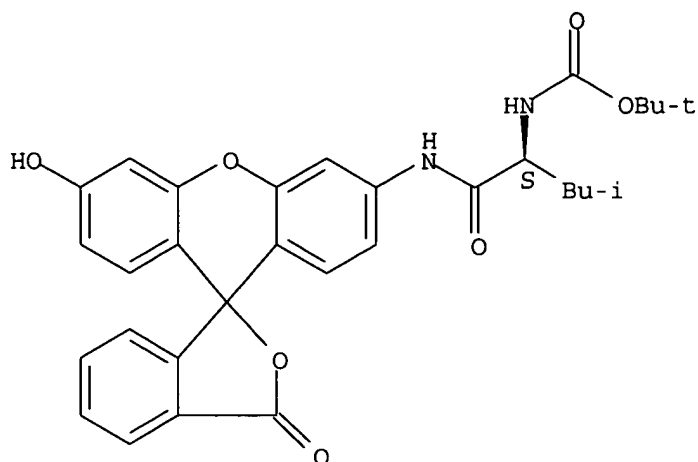
IT **3086-44-0**, Rhodol  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(haloalkyl derivs. of blocked reporter mols. and their use in anal. of  
metabolic activity in cells)  
RN 3086-44-0 CAPLUS  
CN Spiro[isobenzofuran-1(3H), 9'-[9H]xanthen]-3-one, 3'-amino-6'-hydroxy-  
(9CI) (CA INDEX NAME)



IT **185195-74-8P 185195-75-9P**  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(haloalkyl derivs. of blocked reporter mols. and their use in anal. of  
metabolic activity in cells)  
RN 185195-74-8 CAPLUS  
CN Carbamic acid, [1-[[[(6'-hydroxy-3-oxospiro[isobenzofuran-1(3H), 9'-  
[9H]xanthen]-3'-yl)amino]carbonyl]-3-methylbutyl]-, 1,1-dimethylethyl  
ester, (1S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

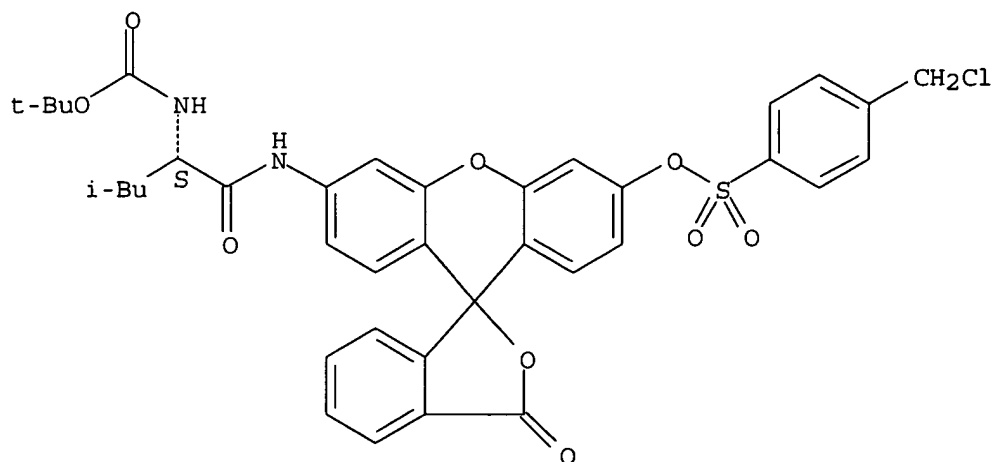




RN 185195-75-9 CAPLUS

CN Benzenesulfonic acid, 4-(chloromethyl)-, 6'-[[2-[[[(1,1-dimethylethoxy)carbonyl]amino]-4-methyl-1-oxopentyl]amino]-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3'-yl ester, (2S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



AB The subject invention provides substrates useful for analyzing the metabolic activity in cells by improving the retention of a detectable reporter mol. only in intact cells where a particular enzyme is present. In particular, improved retention results from a two-part process involving conjugation of haloalkyl-substituted derivs. of a reporter mol. with intracellular cysteine-containing peptides while unblocking the reporter mol. The substrates have the form XR-SPACER-REPORTER-BLOCK wherein BLOCK is a group selected to be removable by action of a specific analyte, to give REPORTER spectral properties different from those of the substrate; REPORTER is a mol. that, when no longer bound to BLOCK by a BLOCK-REPORTER bond, has spectral properties different from those of the substrate; SPACER is a covalent linkage; and XR is a haloalkyl moiety that can covalently react with an intracellular thiol (Z-S-H) to form a thioether conjugate (Z-S-R-). After the substrate enters the cells, the analyte

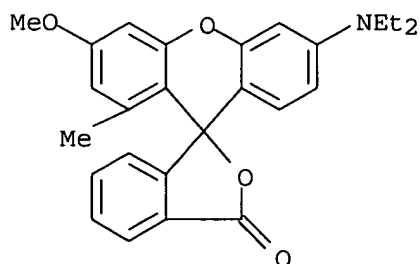
removes BLOCK to make REPORTER detectable by the change in spectral properties, and the haloalkyl XR reacts with the intracellular thiol to form the thioether conjugate inside the cells, which is well-retained in the cells. Numerous fluorescein, coumarin, and rhodol or rhodamine derivs. were prepared, some of which could be unblocked by peptidases or by  $\beta$ -galactosidases. The  $\beta$ -galactosidase substrate was shown to be taken up and retained by lacZ+ cells. This substrate was not cytotoxic.

L6 ANSWER 33 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1996:404513 CAPLUS  
DOCUMENT NUMBER: 125:71991  
TITLE: Thermal recording material  
INVENTOR(S): Takeuchi, Akira  
PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08090918	A2	19960409	JP 1994-231609	19940927
JP 3404149	B2	20030506		
PRIORITY APPLN. INFO.:			JP 1994-231609	19940927

IT **178332-88-2**  
RL: DEV (Device component use); USES (Uses)  
(dye precursor; thermal recording material for high-d. image)  
RN 178332-88-2 CAPLUS  
CN Spiro[isobenzofuran-1(3H), 9' - [9H]xanthen]-3-one, 6' - (diethylamino) -3' - methoxy-1'-methyl- (9CI) (CA INDEX NAME)



AB The material contains 0.1-4 weight% (total solid content) alumina sol, silica sol, and/or colloidal silica in the thermal recording layer. The material may have a haze value  $\leq 40\%$ . The recording layer may be obtained from a coating solution containing microencapsulated leuco dye precursors and emulsified developers. The material gives high-d. images without cracking.

L6 ANSWER 39 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

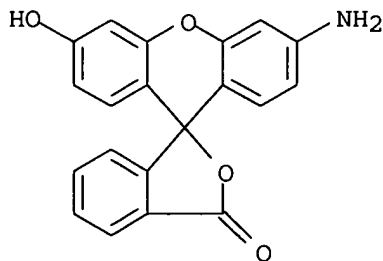
ACCESSION NUMBER: 1995:267306 CAPLUS  
DOCUMENT NUMBER: 122:50761  
TITLE: Fluorescent ion-selective diaryldiaza crown ether conjugates  
INVENTOR(S): Kuhn, Michael A.; Haugland, Richard P.

10/789,276

PATENT ASSIGNEE(S): Molecular Probes Inc., USA  
SOURCE: Brit. UK Pat. Appl., 36 pp.  
CODEN: BAXXDU  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 11  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2277096	A1	19941019	GB 1994-6231	19940329
GB 2277096	B2	19961211		
US 5405975	A	19950411	US 1993-38918	19930329

PRIORITY APPLN. INFO.:  
IT 3086-44-0, Rhodol  
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)  
(fluorescent ion-selective diaryldiaza crown ether conjugates for  
biochem. anal.)  
RN 3086-44-0 CAPLUS  
CN Spiro[isobenzofuran-1(3H), 9']-[9H]xanthen]-3-one, 3'-amino-6'-hydroxy-  
(9CI) (CA INDEX NAME)



AB Sensors for ions are based on the combination of xanthylium-based dyes with metal-binding N,N'-diaryldiaza crown ethers. These sensors are primarily useful for detection and quantitation of alkali-metal ions in aqueous solution. Binding of the ion results in a change in the fluorescence properties of the indicating dye that can be correlated with the ion concentration. Methods are provided for attaching reactive groups on these sensors for conjugation to dyes, lipids and polymers and for enhancing entry of the indicators into living cells. The sensor compds. comprise crown ether derivs. comprising FLUOR substituents where FLUOR is a pyronine, xanthene, fluorescein, rhodamine, rhodol, benzofluorescein, dibenzofluorescein, semi-naphthofluorescein or naphthofluorescein.

L6 ANSWER 40 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1995:249712 CAPLUS  
DOCUMENT NUMBER: 122:305348  
TITLE: Extraction of ion associates formed by metal-crown  
ether complexes and xanthene or sulfophthalein dye  
anions  
AUTHOR(S): Mchedlov-Petrosyan, N. O.; Egorova, S. I.; Arias  
Cordova, E.  
CORPORATE SOURCE: Khar'kov State University, Kharkov, 310057, Ukraine  
SOURCE: Zhurnal Analiticheskoi Khimii (1994), 49(11), 1177-83  
CODEN: ZAKHA8; ISSN: 0044-4502  
PUBLISHER: MAIK Nauka  
DOCUMENT TYPE: Journal

10/789,276

LANGUAGE: Russian

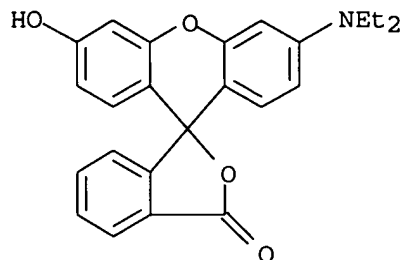
IT 136858-26-9

RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study);  
RACT (Reactant or reagent); USES (Uses)

(extraction of ion assocns. formed by metal-crown ether complexes and  
xanthene or sulfophthalein dye anions)

RN 136858-26-9 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3'-(diethylamino)-6'-  
hydroxy- (9CI) (CA INDEX NAME)



AB Equilibrium consts. for the extraction of ion assocns. formed by dyes with the  
Li+,

Na+, K+, and Pb2+ complexes of 18-crown-6, dibenzo-18-crown-6, 15-crown-5,  
and dibenzo-24-crown-8 were determined. The comparison of these values with the  
Kex for ion pairs formed by dyes with tetraphenylarsonium shows that  
specific interactions with counter ions lead to a differentiation of the  
extraction capacity of the dye anions. Bromothymol blue, eosin, and erythrosin  
were the most effective counter ions for extracting the crown-ether complexes  
studied. With Rhodamine 200V, the extraction consts. are lower, but the  
insensitivity of the extractability of its ion assocns. to the aqueous-phase  
pH over a wide range of acidities, as well as the intense fluorescence of  
the exts., make this reagent valuable for determining cationic species by  
extraction-fluorometric methods. Molar absorptivities of the ion assocns. were  
also determined.

L6 ANSWER 41 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1995:212442 CAPLUS

DOCUMENT NUMBER: 122:163505

TITLE: Leuco dyes

INVENTOR(S): Yanagihara, Naoto

PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 06228445	A2	19940816	JP 1993-16331	19930203
JP 3548189	B2	20040728		
PRIORITY APPLN. INFO.:			JP 1993-16331	19930203
OTHER SOURCE(S):	MARPAT	122:163505		

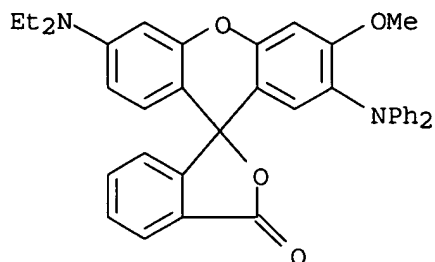
IT 155251-42-6

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reduction of)

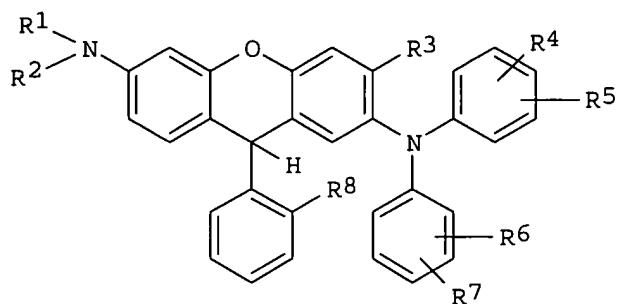
10/789,276

RN 155251-42-6 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 6'-(diethylamino)-2'-(diphenylamino)-3'-methoxy- (9CI) (CA INDEX NAME)



GI



I

AB The color formers are shown as I (R1, R2 = H, alkyl, aralkyl, aryl; R3 = H, alkyl, aralkyl, aryl, halo, alkoxy, aryloxy, alkylthio, arylthio; R4-R7 = H, alkyl, alkoxy, halo, CF3, substituted amino, substituted carbonyl, substituted sulfonyl; R8 = H, alkyl, substituted carbonyl; R1R2N may represent a hetero ring). Thus, powdered Zn was added to 2-(diphenylamino)-3-methoxy-6-(diethylamino)fluoran in HOAc, and stirred at 105° for 1 h to give 2-(diphenylamino)-3-methoxy-6-(diethylamino)-9-(2-carboxyphenyl)xanthene, which was mixed with K2CO3 in AcNMe2 and methylated with Me2SO4.

L6 ANSWER 47 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:335066 CAPLUS

DOCUMENT NUMBER: 120:335066

TITLE: Thermally reversible color-forming agents contained in heat-sensitive recording materials

INVENTOR(S): Goto, Hiroshi; Maruyama, Katsuji

PATENT ASSIGNEE(S): Ricoh Kk, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

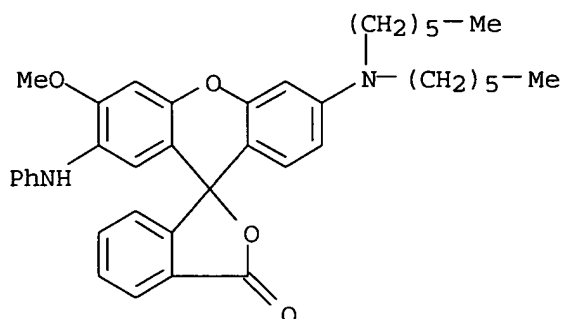
KIND

DATE

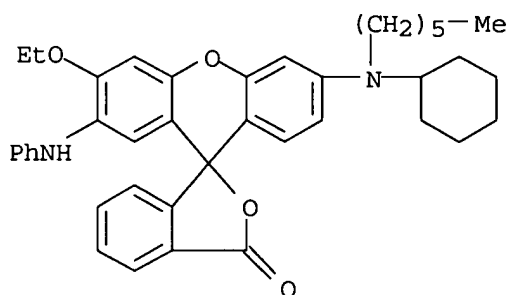
APPLICATION NO.

DATE

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 JP 05201132                      A2                      19930810                      JP 1992-35634                      19920127  
 PRIORITY APPLN. INFO.:                      JP 1992-35634                      19920127  
 OTHER SOURCE(S):                      MARPAT 120:335066  
 IT    155295-03-7, 2-Anilino-3-methoxy-6-(di-n-hexylamino)fluoran  
       155295-04-8, 2-Anilino-3-ethoxy-6-(N-cyclohexyl-N-n-  
       hexylamino)fluoran 155295-05-9, 2-Anilino-3-ethoxy-6-(di-n-  
       amylamino)fluoran 155295-12-8, 2-Amino-3-methoxy-6-(di-n-  
       amylamino)fluoran  
 RL: USES (Uses)  
       (thermally reversible color-forming agent, heat-sensitive recording  
       material containing)  
 RN    155295-03-7    CAPLUS  
 CN    Spiro[isobenzofuran-1(3H), 9' - [9H]xanthen]-3-one, 6' - (dihexylamino) - 3' -  
       methoxy-2' - (phenylamino) - (9CI)    (CA INDEX NAME)

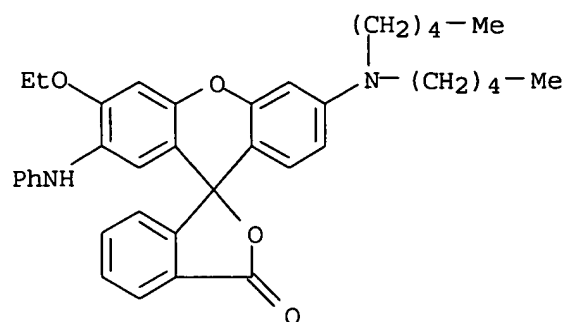


RN    155295-04-8    CAPLUS  
 CN    Spiro[isobenzofuran-1(3H), 9' - [9H]xanthen]-3-one, 6' - (cyclohexylhexylamino) -  
       3' - ethoxy-2' - (phenylamino) - (9CI)    (CA INDEX NAME)



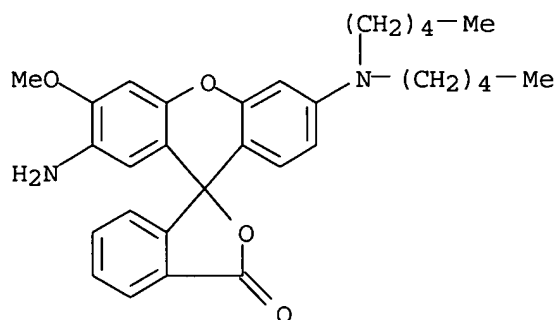
RN    155295-05-9    CAPLUS  
 CN    Spiro[isobenzofuran-1(3H), 9' - [9H]xanthen]-3-one, 6' - (dipentylamino) - 3' -  
       ethoxy-2' - (phenylamino) - (9CI)    (CA INDEX NAME)

10/789,276

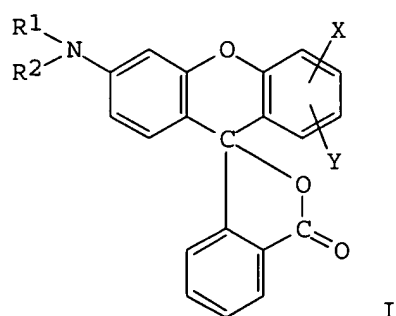


RN 155295-12-8 CAPLUS

CN Spiro[isobenzofuran-1(3H), 9'-[9H]xanthen]-3-one, 2'-amino-6'-(dipentylamino)-3'-methoxy- (9CI) (CA INDEX NAME)



GI



AB The thermally reversible color-forming agent is made of a fluoran compound I [R1 = C<sub>2</sub>-4 linear or branched alkyl, cyclic alkyl, allyl, alkoxyalkyl; R2 = H, C<sub>2</sub>-4 linear or branched alkyl, cyclic alkyl, allyl, alkoxyalkyl; X = H, C<sub>1</sub>-4 lower alkyl, C<sub>1</sub>-4 alkoxy or alkoxyalkyl; Y = C<sub>1</sub>-4 lower alkyl, amino, cyano] which is used together with a developer containing a long-chain aliphatic group. The thermally reversible color-forming agent exhibits excellent color-forming and

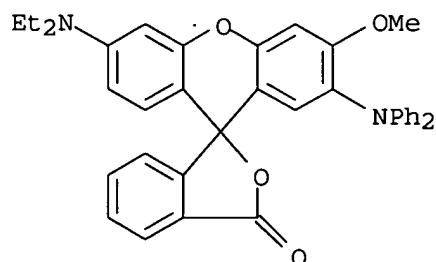
color-erasing properties.

L6 ANSWER 48 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

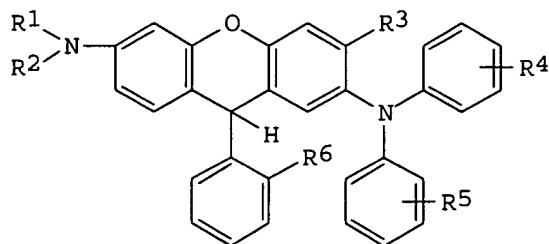
ACCESSION NUMBER: 1994:335022 CAPLUS  
 DOCUMENT NUMBER: 120:335022  
 TITLE: Thermal recording material  
 INVENTOR(S): Yanagihara, Naoto; Endo, Tosiaki; Wachi, Naotaka  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Ger. Offen., 10 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4317378	A1	19931202	DE 1993-4317378	19930525
JP 05323492	A2	19931207	JP 1992-133925	19920526
JP 2753918	B2	19980520		
US 5389489	A	19950214	US 1993-63467	19930519
			JP 1992-133925	A 19920526

PRIORITY APPLN. INFO.:  
 OTHER SOURCE(S): MARPAT 120:335022  
 IT **155251-42-6P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and use of, as dye in thermal recording material)  
 RN 155251-42-6 CAPLUS  
 CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 6'-(diethylamino)-2'-(diphenylamino)-3'-methoxy- (9CI) (CA INDEX NAME)



GI



I

AB The title material comprises: (1) microcapsules containing a leuco dye and an photooxidizing agent; and (2) a reducing agent where the leuco dye is a

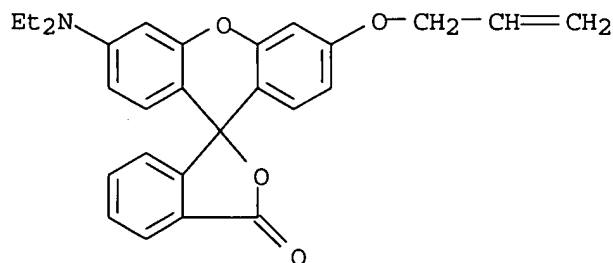


xanthene derivative I [R1, R2 = H, alkyl, aryl, aralkyl; R3 = R1, halogen, alkoxy, aryloxy, alkylthio, arylthio; R4 = H, alkyl, alkoxy, halogen, trifluoromethyl, substituted carbonyl, substituted sulfonyl; R6 = H, alkyl, substituted carbonyl; R1-R2 and R4-R5 can form a ring which may contain a heterocyclic ring]. The microcapsules may also contain an antioxidant material. The material provides high image density and low fog.

L6 ANSWER 49 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1994:257501 CAPLUS  
 DOCUMENT NUMBER: 120:257501  
 TITLE: Thermal coloring substance and coloring sheet using same  
 INVENTOR(S): Tsucha, Kikuo; Inoe, Masahiko; Inagaki, Seiji; Kitao, Teiji  
 PATENT ASSIGNEE(S): Dainippon Ink & Chemicals, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05064965	A2	19930319	JP 1992-53572	19920312
JP 3331614	B2	20021007		

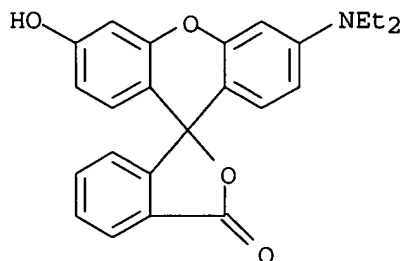
PRIORITY APPLN. INFO.: JP 1991-48152 A1 19910313  
 IT **138518-26-0P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and use of, as thermal coloring substance)  
 RN 138518-26-0 CAPLUS  
 CN Spiro[isobenzofuran-1(3H), 9']-[9H]xanthen]-3-one, 3'-(diethylamino)-6'-(2-propenyloxy)-(9CI) (CA INDEX NAME)



AB The title thermal coloring substance is a compound which forms color due to an acid group generated by chemical reaction caused by temperature changes.  
 The title coloring sheet has a heat-sensitive coloring layer containing the above coloring substance. Stable images with high coloring density are obtained.

L6 ANSWER 50 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1994:220374 CAPLUS  
 DOCUMENT NUMBER: 120:220374  
 TITLE: Ionization and tautomerism of fluorescein, rhodamine B, N,N-diethylrhodol and related dyes in mixed and nonaqueous solvents  
 AUTHOR(S): Mchedlov-Petrosyan, Nikolay O.; Kukhtik, Valentina

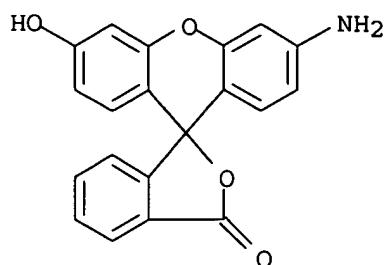
I.; Alekseeva, Vera I.  
 CORPORATE SOURCE: Kharkov State Univ., Kharkov, 310077, Ukraine  
 SOURCE: Dyes and Pigments (1994), 24(1), 11-35  
 CODEN: DYPIDX; ISSN: 0143-7208  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 136858-26-9, N,N-Diethylrhodol  
 RL: PRP (Properties)  
 (ionization and tautomerism of, in mixed solvents)  
 RN 136858-26-9 CAPLUS  
 CN Spiro[isobenzofuran-1(3H),9' - [9H]xanthen]-3-one, 3'-(diethylamino)-6'-hydroxy- (9CI) (CA INDEX NAME)



AB The protolytic equilibrium of fluorescein, rhodamine B and of the asym. amino-oxyanthene dye, N,N-diethylrhodol (a 'hybrid' of rhodamine B and fluorescein) were studied in aqueous DMSO and EtOH (91% organic cosolvent).

The pKa values of these dyes, as well as of related substances, were determined. On the basis of the visible absorption spectra in various solvents conclusions were made about tautomerism in the dye mols. Values of the tautomeric equilibrium consts. and of the microscopic ionization consts. were obtained. Some new data on the tautomerism of oxyanthene monoanions in MeOH were presented.

L6 ANSWER 54 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1993:97347 CAPLUS  
 DOCUMENT NUMBER: 118:97347  
 TITLE: Fluorescent rhodol derivatives: versatile, photostable labels and tracers  
 AUTHOR(S): Whitaker, James E.; Haugland, Rosaria P.; Ryan, Diane; Hewitt, Peter C.; Haugland, Richard P.; Prendergast, Franklyn G.  
 CORPORATE SOURCE: Mol. Probes, Inc., Eugene, OR, 97402, USA  
 SOURCE: Analytical Biochemistry (1992), 207(2), 267-79  
 CODEN: ANBCA2; ISSN: 0003-2697  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 3086-44-0D, Rhodol, derivs.  
 RL: ANST (Analytical study)  
 (as fluorescent label and tracer for biochem. studies)  
 RN 3086-44-0 CAPLUS  
 CN Spiro[isobenzofuran-1(3H),9' - [9H]xanthen]-3-one, 3'-amino-6'-hydroxy- (9CI) (CA INDEX NAME)



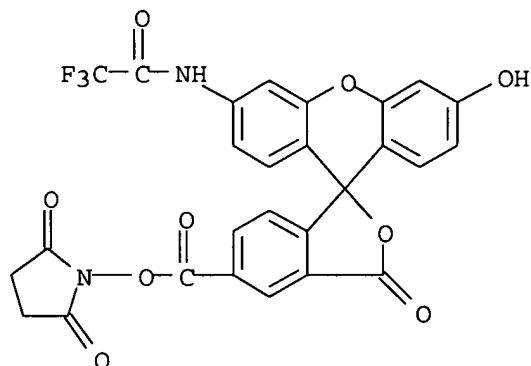
IT 145695-38-1P 145695-39-2P

RL: PREP (Preparation)

(preparation of, for biochem. studies)

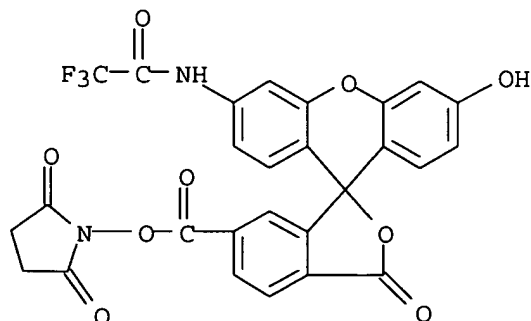
RN 145695-38-1 CAPLUS

CN Acetamide, N-[5-[[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]-6'-hydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3'-yl]-2,2,2-trifluoro- (9CI)  
(CA INDEX NAME)



RN 145695-39-2 CAPLUS

CN Acetamide, N-[6-[[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]-6'-hydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3'-yl]-2,2,2-trifluoro- (9CI)  
(CA INDEX NAME)



AB A series of chemical reactive, fluorescent rhodol derivs. was prepared and evaluated. Reactive functional groups included activated esters, amines, haloacetamides, fixable hydrazide derivs., acrylamides, and photoaffinity reagents. Depending on the choice of substituents, absorption maximum of the

dyes varied from 490 to 550 nm with extinction coeffs. that were generally greater than 50,000 M<sup>-1</sup> cm<sup>-1</sup> in aqueous solution and emission maximum from 520 to

580 nm. Most of the compds. investigated exhibited fluorescence lifetimes between 3 and 4 ns. Individual derivs. were suitable for excitation with the 488 and 514-nm lines of the argon ion laser and the 546-nm line of the mercury arc lamp and were compatible for use with standard fluorescein and rhodamine filter sets. The rhodol dyes were more photostable and less sensitive to pH changes in the physiol. range than fluorescein derivs. Some examples show absorption maximum at or near 514 nm, an excitation wavelength that is useful for multicolor fluorescence microscopy, flow cytometry, and DNA sequencing. Derivs. were also prepared that exhibit absorption and emission maximum similar to those of tetramethylrhodamine (TMR) analogs but with higher quantum yields in aqueous solution A number of

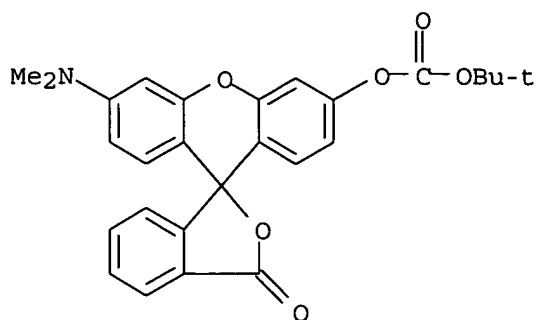
the dyes had higher solubilities in aqueous systems and were less quenched on conjugation to proteins than TMR derivs. Appropriate substitution results in a wider range of solubilities in hydrophilic or lipophilic solvents than is easily accomplished with fluorescein or TMR derivs. Conjugates of a number of the rhodol fluorophores were generally more photostable and less pH sensitive than fluorescein conjugates and more fluorescent than TMR conjugates.

L6 ANSWER 55 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1993:14048 CAPLUS  
DOCUMENT NUMBER: 118:14048  
TITLE: Fluoran compound and thermal recording material  
INVENTOR(S): Omura, Haruo; Tsuchida, Tetsuo; Kondo, Mitsuru  
PATENT ASSIGNEE(S): Kanzaki Paper Mfg. Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04213368	A2	19920804	JP 1991-10851	19910131
JP 2874356	B2	19990324		
PRIORITY APPLN. INFO.:			JP 1990-172243	A1 19900628
OTHER SOURCE(S):	MARPAT 118:14048			
IT <b>144878-19-3P</b>				
RL: PREP (Preparation)				
(preparation of, color-former, thermal recording material using)				
RN	144878-19-3 CAPLUS			
CN	Carbonic acid, 6'-(dimethylamino)-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3'-yl 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)			

10/789,276

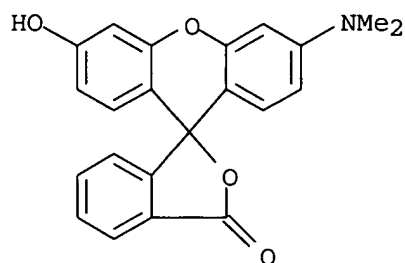


IT 128603-56-5

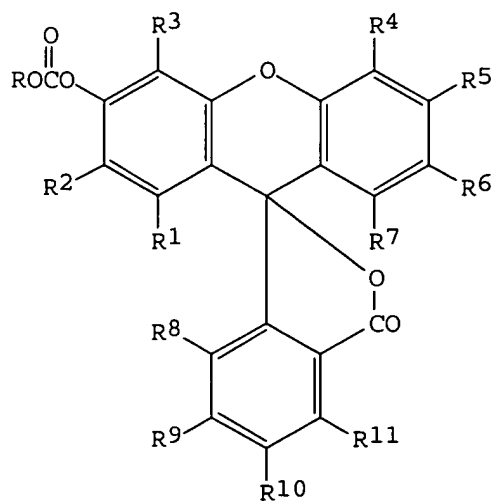
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with Bu ester)

RN 128603-56-5 CAPLUS

CN Spiro[isobenzofuran-1(3H), 9']-[9H]xanthene-3-one, 3'-(dimethylamino)-6'-hydroxy- (9CI) (CA INDEX NAME)



GI



I

AB The fluoran compound I [R = C4-12 tert-alkyl, R1-11 = H, halo, C1-12 alkyl,

C1-12 alkoxy, OH, NO<sub>2</sub>, NR<sub>12</sub>R<sub>13</sub>, O(CO)OR<sub>14</sub>, OCOR<sub>15</sub>, R<sub>12</sub>-13 = H, C1-12 alkyl, C4-12 cycloalkyl, (halo or C1-6 alkyl or C1-6 alkoxy-substituted) aralkyl or aryl; R<sub>12</sub> and R<sub>13</sub> may form pyrrolidino, piperidino or hexamethyleneimino group; R<sub>14</sub> = C1-12 alkyl, benzyl, (halo or C1-6 alkyl or C1-6 alkoxy-substituted) aryl; R<sub>15</sub> = C1-12 alkyl, benzyl, (halo or C1-6 alkyl or C1-6 alkoxy-substituted) aryl, NR<sub>16</sub>R<sub>17</sub>; R<sub>16</sub>-17 = H, C1-12 alkyl, C4-12 cycloalkyl, (halo or C1-6 alkyl or C1-6 alkoxy-substituted) aralkyl or aryl, R<sub>16</sub> and R<sub>17</sub> may form a pyrrolidino or piperidino or hexamethyleneimino group] is claimed. In the thermal recording material comprising a support and a heat-sensitive layer containing a dye-precursor and an acid compound color-developer, the dye-precursor contains  $\geq 1$  of I. The material shows high whiteness, storage stability, and gives high-d. images.

L6 ANSWER 56 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1992:196201 CAPLUS

DOCUMENT NUMBER: 116:196201

TITLE: Thermally generated dyes: coloration via successive Claisen rearrangement and intramolecular acid-base reaction

AUTHOR(S): Inouye, Masahiko; Tsuchiya, Kikuo; Kitao, Teijiro

CORPORATE SOURCE: Dep. Appl. Chem., Univ. Osaka Prefect., Sakai, 591, Japan

SOURCE: Angewandte Chemie (1992), 104(2), 198-200 (See also Angew. Chem., Int. Ed. Engl., 1992, 31(2), 204-5) CODEN: ANCEAD; ISSN: 0044-8249

DOCUMENT TYPE: Journal

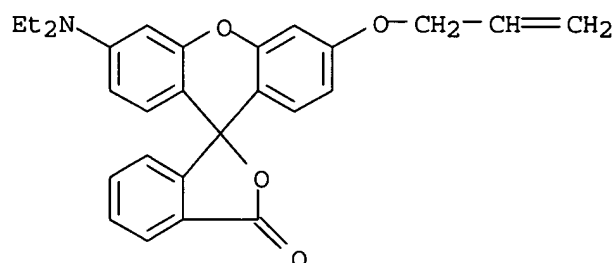
LANGUAGE: German

IT 138518-26-0P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and intramol. acid-base reaction of, thermal coloration in relation to)

RN 138518-26-0 CAPLUS

CN Spiro[isobenzofuran-1(3H), 9'-[9H]xanthen]-3-one, 3'-(diethylamino)-6'-(2-propenyloxy)- (9CI) (CA INDEX NAME)



AB Colorless fluoran spiro lactones containing allyloxy and Et<sub>2</sub>N groups when heated at 180° underwent a Claisen rearrangement to give allyl phenols. The acid OH groups of the phenols participated in an intramol. acid-based reaction with lactone ring opening to give a colored compound in solution or in a PMMA matrix.

L6 ANSWER 63 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

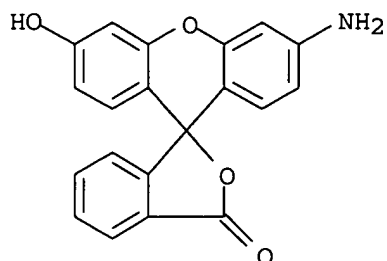
ACCESSION NUMBER: 1989:493171 CAPLUS

DOCUMENT NUMBER: 111:93171

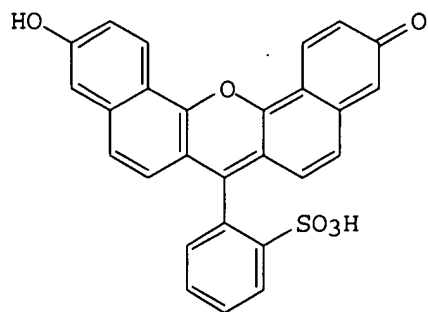
TITLE: Vita blue: a new 633-nm excitable fluorescent dye for

10/789,276

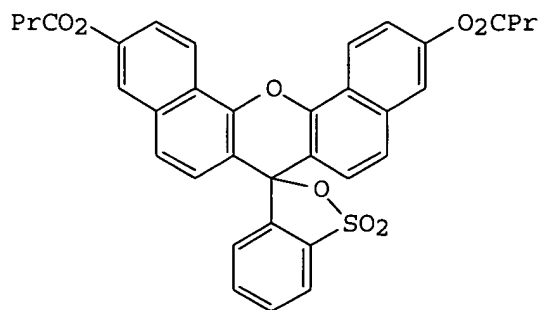
cell analysis  
AUTHOR(S): Lee, Linda G.; Berry, Gillian M.; Chen, Chia Huei  
CORPORATE SOURCE: Becton Dickinson Monoclonal Cent., Mountain View, CA,  
94043, USA  
SOURCE: Cytometry (1989), 10(2), 151-64  
CODEN: CYTODQ; ISSN: 0196-4763  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 3086-44-0P, Rhodol  
RL: PREP (Preparation)  
(preparation and spectral properties and acidity of)  
RN 3086-44-0 CAPLUS  
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3'-amino-6'-hydroxy-  
(9CI) (CA INDEX NAME)



GI



I



II

AB Several new derivs. of fluorescein were synthesized. The dyes were

characterized by NMR; and the absorbance, excitation, and emission spectra were measured. The fluorescence quantum yields of the dyes were determined. The pKa3 values of the dyes were measured by fluorescence titration. The characteristics of the fluorescein and sulfonefluorescein derivs. were compared. The most promising dye for use in cell anal. appeared to be Vita Blue I. Vita Blue dibutyrate (VBDB) (II) was prepared and the Km of VBDB with pig liver esterase was measured and found to be  $4 \times 10^{-5} \text{M}$ . The pKa3 of Vita Blue was 7.56; both acidic and basic forms were fluorescent (dual fluorescence). The use of VBDB as an intramol. esterase substrate and its utility for the discrimination between live and dead cells by flow cytometry is described.

L6 ANSWER 64 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1989:163596 CAPLUS  
 DOCUMENT NUMBER: 110:163596  
 TITLE: Photopolymerization photographic material  
 INVENTOR(S): Watanabe, Toshiyuki; Harada, Toru  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63129338	A2	19880601	JP 1986-277091	19861119
JP 06019565	B4	19940316		
PRIORITY APPLN. INFO.:			JP 1986-277091	19861119
OTHER SOURCE(S): MARPAT 110:163596				

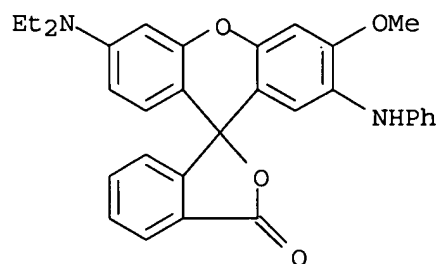
IT 73852-10-5 91204-13-6 91204-14-7

RL: USES (Uses)

(photopolymn. photog. composition containing, for colored image formation)

RN 73852-10-5 CAPLUS

CN Spiro[isobenzofuran-1(3H), 9' - [9H]xanthen]-3-one, 6' - (diethylamino) - 3' - methoxy - 2' - (phenylamino) - (9CI) (CA INDEX NAME)

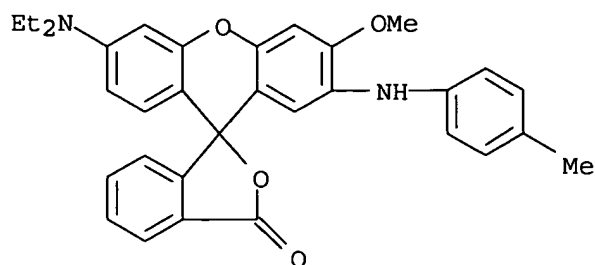


RN 91204-13-6 CAPLUS

CN Spiro[isobenzofuran-1(3H), 9' - [9H]xanthen]-3-one, 6' - (diethylamino) - 3' - methoxy - 2' - [(4-methylphenyl)amino] - (9CI) (CA INDEX NAME)

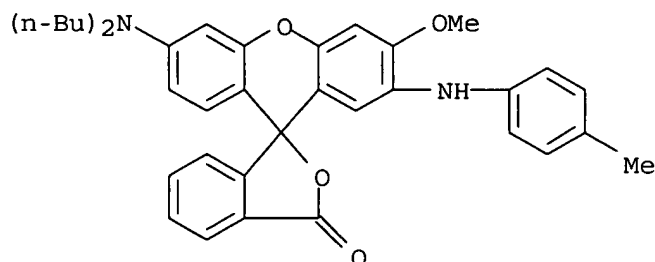


10/789,276

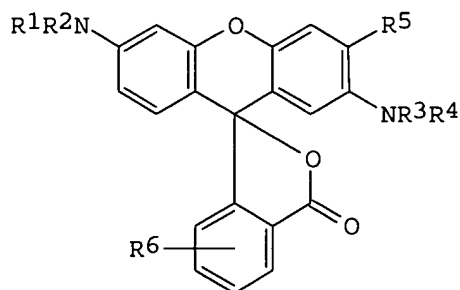


RN 91204-14-7 CAPLUS

CN Spiro[isobenzofuran-1(3H), 9'-[9H]xanthen]-3-one, 6'-(dibutylamino)-3'-methoxy-2'-[(4-methylphenyl)amino]- (9CI) (CA INDEX NAME)



GI



I

AB A photopolymer. photog. material comprising a support, Ag halide, a reducing agent, and a polymerizable compound contains a leuco dye I [R1-4 = H, alkyl, cycloalkyl, aryl, aryl; R1 and R2 or R3 and R4 may form 5- or 6-membered rings with adjoining N; R5 = H, halo, alkyl, alkoxy, alkylthio; R6 = H, halo, NO2, NHCOR7 (R7 = alkyl, aryl)]. A full color image is obtained with good black color d. and good overall contrast on exposure through a full color pos. and thermal transfer.

L6 ANSWER 65 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1989:24247 CAPLUS

DOCUMENT NUMBER: 110:24247

TITLE: Preparation of 2-substituted-3-protected 1,3,2-oxazaphosphacycloalkanes, their phosphoramidite precursors, and their use for introducing spacer groups of labeled oligonucleotides by solid phase

method  
 INVENTOR(S): Fung, Steven; Woo, Sam L.; Smith, Lloyd M.  
 PATENT ASSIGNEE(S): Applied Biosystems, Inc., USA  
 SOURCE: U.S., 7 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4757141	A	19880712	US 1985-769170	19850826
WO 8802004	A1	19880324	WO 1986-US1970	19860920
W: AU, JP				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
US 5212304	A	19930518	US 1988-216768	19880708
US 5258538	A	19931102	US 1991-734575	19911029
JP 06128285	A2	19940510	JP 1993-65992	19930303
JP 2509863	B2	19960626		
JP 06206889	A2	19940726	JP 1993-65993	19930303
JP 07121954	B4	19951225		
PRIORITY APPLN. INFO.:			US 1985-769170	19850826
			JP 1986-505094	19860920
			US 1988-216768	A3 19880708

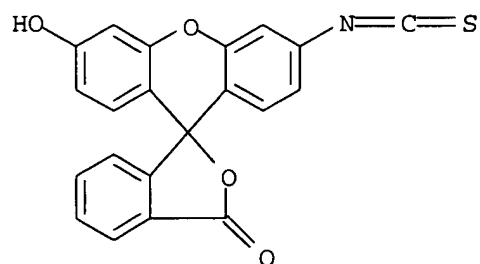
OTHER SOURCE(S): MARPAT 110:24247

IT **118106-60-8**

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (acylation by, of TCCCAGTCACGACGTT aminoethyl phosphate)

RN 118106-60-8 CAPLUS

CN Spiro[isobenzofuran-1(3H), 9'-[9H]xanthen]-3-one, 3'-hydroxy-6'-isothiocyanato- (9CI) (CA INDEX NAME)



GI For diagram(s), see printed CA Issue.

AB The title reagents, 2-substituted-3-protected-1,3,2-oxazaphosphacycloalkanes, [I and II; R1 = amino protecting group; R2, R3 = H, (un)substituted lower alkyl, lower acyl, cyano, halo, nitro; R4 = C≤10 alkyl, alkenyl, aryl, aralkyl, or cycloalkyl; n = 2-4; m = 1-3] and their conjugates with polymer supports or nucleotides linked to polymer supports (III; i = 0, 1; k = 1 when i = 1 or k = 0 when i = 1; m = 1-3; n = 2-4; W = a hydroxylic polymer support or oligonucleotide linked to a polymer support) and R1NH(CR2R3)OP(O)i(OR4k)OW, useful for linking organic moieties, such as fluorescent or chromogenic dyes, to polymer supports and oligonucleotides, particularly single- and double-stranded DNA and RNA fragments, are described. Thus, condensation of (Me2CH)2NPClOMe with CF3CONHCH2CH2OH in Cl2CH2 in the presence of (Me2CH)2NEt at 0° gave (Me2CH)2NP(OMe)OCH2CH2NHCOCF3 which was

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distilled at 58-59° and 0.8 Torr to give I (R1 = COCF3, R2 = R3 = H, R4 = Me, n = 2). In 3 examples, 5'-aminoethylphosphate TCCCAGTCACGACGTT was prepared by the solid phase method and reacted with fluorescein 6-isothiocyanate in H2O in 1M NaHCO3/Na2CO3 buffer to give a fluorescein-labeled oligonucleotide.

L6 ANSWER 75 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1986:216611 CAPLUS  
DOCUMENT NUMBER: 104:216611  
TITLE: Thermal recording paper  
INVENTOR(S): Kaneko, Kazuo; Suzuka, Susumu; Gonda, Michihiro  
PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

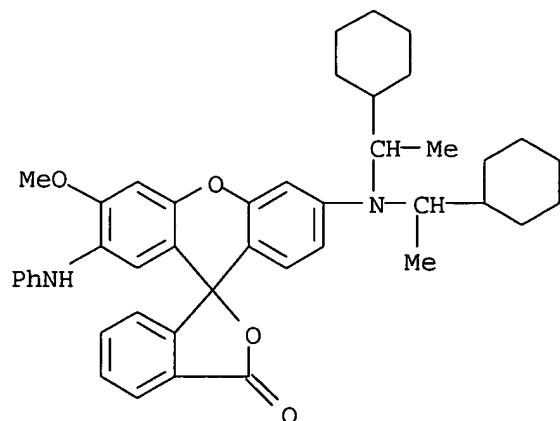
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60239281	A2	19851128	JP 1984-95706	19840515
PRIORITY APPLN. INFO.:			JP 1984-95706	19840515

IT 102106-03-6

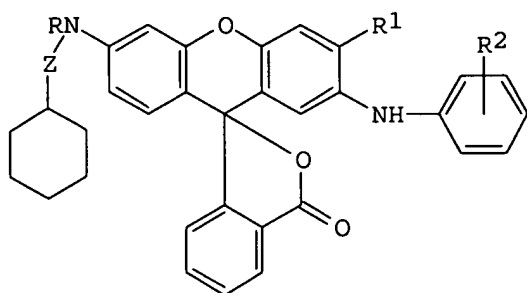
RL: TEM (Technical or engineered material use); USES (Uses)  
(thermal recording material containing)

RN 102106-03-6 CAPLUS

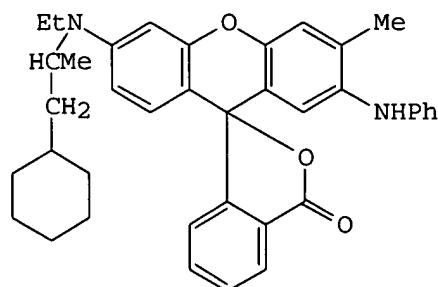
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 6'-[bis(1-cyclohexylethyl)amino]-3'-methoxy-2'-(phenylamino)- (9CI) (CA INDEX NAME)



GI



I



II

AB A recording paper contains a fluoran compound as color former (R = C1-8 alkyl; cyclohexylalkyl, cycloalkyl, (substituted) Ph, alkoxyalkyl, benzyl, H; R1 = H, halo, C1-4 alkyl, (substituted) Ph, benzyl, lower alkoxy, lower alkoxyalkyl; R2 = H, Cl, F, C1-4 alkyl; Z = branched C1-6 alkylene). The use of the color former provides desirable properties, especially high sensitivity and low fog d. to the recording paper. Thus, 3 dispersions comprised of (1) 3'-N-methyl-N-cyclohexylpropyl(1)-6'-methyl-7'-phenylaminofluoran (II) 4, 10% aqueous poly(vinyl alc.) (III) 30, and 5% Nopco 1407 2 parts, (2) bisphenol A 6, 10% aqueous III 20, and H2O 14 parts, and (3) Al(OH)3 10, 10% aqueous III 20, and H2O 10 parts. These 3 dispersions and H2O were mixed in 3:9:5:3 ratio and coated on paper to form a 5-g/m2 layer. The material in comparison with the control (using 3'-N-methyl-N-methylamino-6'-methyl-2'-phenylaminofluoran instead of II) showed fog d. 0.11 (vs. 0.39) and heat sensitivity (temperature to attain d. 1.0 under specified conditions) was 113° (vs. 115°).

L6 ANSWER 76 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1986:216598 CAPLUS

DOCUMENT NUMBER: 104:216598

TITLE: 6-Tetrahydrofurfurylaminofluoran compound useful as a color former

INVENTOR(S): Sensui, Hideyuki; Suzuka, Susumu; Gonda, Michihiro; Kikkawa, Katsumasa

PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd. , Japan

SOURCE: Eur. Pat. Appl., 26 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 155796	A2	19850925	EP 1985-301502	19850305

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EP 155796 A3 19860402  
EP 155796 B1 19880914

R: BE, DE, FR, GB, IT

JP 60184878 A2 19850920 JP 1984-40526 19840305  
JP 02059792 B4 19901213  
JP 60208360 A2 19851019 JP 1984-65097 19840403  
JP 03077229 B4 19911209  
US 4597795 A 19860701 US 1985-693116 19850122

PRIORITY APPLN. INFO.: JP 1984-40526 A 19840305  
JP 1984-65097 A 19840403

OTHER SOURCE(S): CASREACT 104:216598

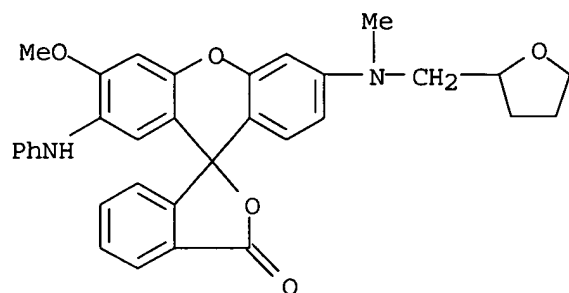
IT 102232-25-7

RL: USES (Uses)

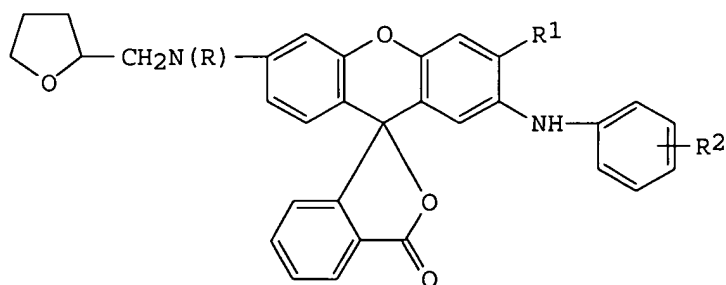
(color-forming agent, for thermal recording materials)

RN 102232-25-7 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3'-methoxy-6'-  
[methyl[(tetrahydro-2-furanyl)methyl]amino]-2'-(phenylamino)- (9CI) (CA  
INDEX NAME)



GI



I

AB A heat-sensitive, pressure-sensitive or electrothermal recording material contains a 6-tetrahydrofurfurylamino compound having the formula I (R = H, C1-8 alkyl, tetrahydrofurfuryl, Ph, C1-5 alkylphenyl or C3-8 cycloalkyl; R1 = H, Cl, F, C1-5 alkyl, C1-5 alkoxy, C2-10 alkoxyalkyl, Ph or benzyl; R2 = H, Cl, F, C1-5 alkyl or C2-7 aryl) as a color-forming agent to provide clear color images having satisfactory resistances to humidity and oils. Thus, a liquid solution (A) comprised of 2-anilino-3-methyl-6-N-methyl-N-tetrahydrofurfurylamino compound 4, 10% aqueous poly(vinyl alc.) 34, and a 5% aqueous solution of a defoaming agent (Sun Nopco

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1407) 2 parts, a liquid solution (B) comprised of bisphenol A 6, 10% aqueous poly(vinyl alc.) 20, and H2O 14 parts, and a liquid solution (C) comprised of Al(OH)3 10, 10% aqueous poly(vinyl alc.) 20, and H2O 10 parts were prepared. Then, A 38 B 9, C 5 parts, and H2O 3 parts were mixed, coated on a paper support at 5 g/m2 (dry basis), and dried to give a heat-sensitive recording material which produced a black image having a sensitivity of 107° (a temperature at which an image d. of 1.0 was developed) and good resistances to oils and humidity.

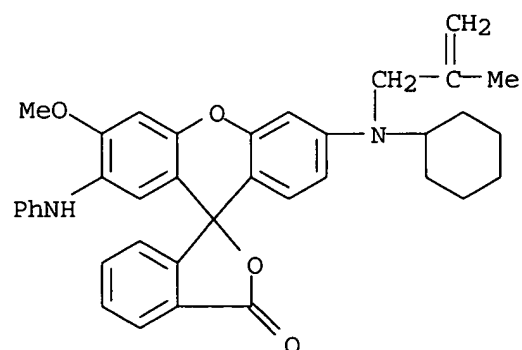
L6 ANSWER 83 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1985:8249 CAPLUS  
DOCUMENT NUMBER: 102:8249  
TITLE: Fluoran color formers  
PATENT ASSIGNEE(S): Kanzaki Paper Mfg. Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59157153	A2	19840906	JP 1983-33120	19830228
PRIORITY APPLN. INFO.:			JP 1983-33120	19830228

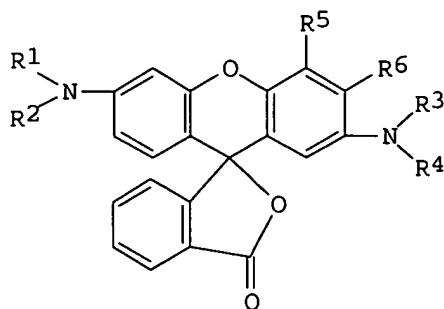
IT 93679-63-1  
RL: USES (Uses)  
(color former, for recording materials)

RN 93679-63-1 CAPLUS

CN Spiro[isobenzofuran-1(3H), 9' - [9H]xanthen]-3-one, 6' - [cyclohexyl (2-methyl-2-propenyl)amino] -3' -methoxy-2' - (phenylamino) - (9CI) (CA INDEX NAME)



GI



I

AB The title compds., useful in recording media, were prepared having the general formula I [R1 = lower alkenyl, alkynyl; R2 = cyclopentyl, cyclohexyl, cyclohexylmethyl, methylcyclohexyl, cycloheptyl; R3 = H, halogen, alkoxy, C1-18 alkyl, cyanoalkyl, (un)substituted aralkyl; R4 = R3, (un)substituted amino, aryl with or without acyl substituent, cycloalkyl; R3R4 = N-heterocycle ring member; R5 = H, halogen, lower alkyl; R6 = R5, lower alkoxy]. Thus, 2-[4-(N-allyl-N-cyclohexylamino)-2-hydroxybenzoyl]benzoic acid [93679-66-4] was condensed with 4-methoxy-2-methyldiphenylamine [41317-15-1] in concentrated H2SO4 to give 3-(N-allyl-N-cyclohexylamino)-7-anilino-6-methylfluoran [93679-48-2], black on silica gel.

L6 ANSWER 84 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1984:581297 CAPLUS

DOCUMENT NUMBER: 101:181297

TITLE: Heat-sensitive recording material

INVENTOR(S): Kaneko, Kazuo; Obara, Toshio; Gonda, Michihiro;

Kickawa, Katsumasa; Kanasugi, Mikiko

PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 26 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 104353	A2	19840404	EP 1983-107344	19830726
EP 104353	A3	19850417		
EP 104353	B1	19871028		
R: BE, DE, FR, GB, IT				
JP 59039594	A2	19840303	JP 1982-150052	19820831
JP 02025354	B4	19900601		
JP 59179395	A2	19841011	JP 1983-54047	19830331
JP 03026675	B4	19910411		
PRIORITY APPLN. INFO.:			JP 1982-150052	A 19820831
			JP 1983-54047	A 19830331

IT 85223-20-7

RL: USES (Uses)

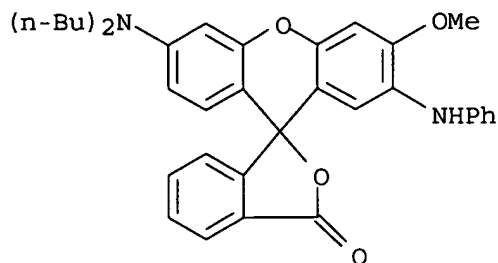
(heat-sensitive recording material containing, benzenesulfonamide compds. for, for increased color-forming sensitivity)

RN 85223-20-7 CAPLUS

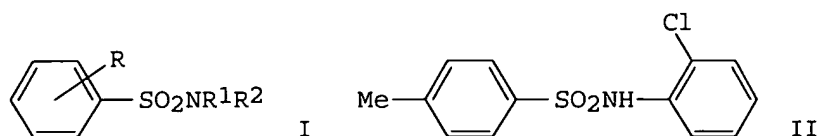
CN Spiro[isobenzofuran-1(3H), 9'-[9H]xanthen]-3-one, 6'-(dibutylamino)-3'-

10/789,276

methoxy-2'-(phenylamino)-(9CI) (CA INDEX NAME)



GI



AB A heat-sensitive recording material with improved heat and water resistance and increased color-forming sensitivity contains a fluoran compound, an acidic developer, a binder and a benzenesulfonamide I (R = H, C1-5 alkyl, acetyl, halo; R1 = H, C1-5 alkyl, Ph, cyclohexyl; R2 = C1-5 alkyl, cyclohexyl, Ph, and R1 + R2 may form together with N a saturated ring). The material is useful for high-speed facsimile recording. Thus, 3 parts of a ball milled dispersion containing 2-(2-chlorophenylamino)-6-diethylaminofluoran 4, 10% aqueous poly(vinyl alc.) 40 parts, was mixed with 10 parts of a ball milled dispersion containing Bisphenol A 7, 10% aqueous poly(vinyl alc.) 40, H2O 10 parts and 3 parts of a ball milled dispersion containing II 78, 10% aqueous poly(vinyl alc.) 40, H2O 10 parts to give a coating composition which was coated on a paper support at 5 g/m<sup>2</sup> dry weight. The material was subjected to heat development at 150° for 3 s under a load of 100 g/cm<sup>2</sup> to give a color d. 1.17 and after irradiation of the image for 6 h by a C arc fading tester the image d. was 0.93.

L6 ANSWER 89 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1983:199843 CAPLUS  
 DOCUMENT NUMBER: 98:199843  
 TITLE: Fluoran color formers  
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57198755	A2	19821206	JP 1981-83314	19810529



PRIORITY APPLN. INFO.:

JP 1981-83314

19810529

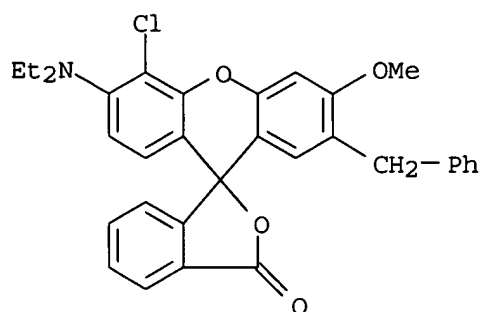
IT 85775-64-0

RL: USES (Uses)

(color formers, for heat-sensitive copying papers, manufacture of)

RN 85775-64-0 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 5'-chloro-6'-(diethylamino)-3'-methoxy-2'-(phenylmethyl)- (9CI) (CA INDEX NAME)



AB 4'-Chloro-3',7'-diaminofluoran derivs. useful as color formers for heat-sensitive copying papers were prepared For example, 2-[4-(diethylamino)-2-hydroxybenzoyl]benzoic acid [5809-23-4] was chlorinated with SO<sub>2</sub>Cl<sub>2</sub> in the presence of Iodine to give 2-[3-chloro-4-(diethylamino)-2-hydroxybenzoyl]benzoic acid [85785-87-1] which was then condensed with N-cyclohexyl-4-hydroxy-2-methylaniline [85775-67-3] to give 4'-chloro-7'-(cyclohexylamino)-3'-(diethylamino)-6'-methylfluoran [85775-62-8] developing a dark bluish green color on heat-sensitive copying paper.

L6 ANSWER 90 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1982:226660 CAPLUS

DOCUMENT NUMBER: 96:226660

TITLE: Ink jet recording sheet

INVENTOR(S): Murakami, Mutsuaki; Hiromori, Yasutaka; Naito, Hiroshi; Sekiguchi, Yumiko

PATENT ASSIGNEE(S): Matsushita Electric Industrial Co., Ltd. , Japan

SOURCE: Eur. Pat. Appl., 68 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 46416	A2	19820224	EP 1981-303806	19810820
EP 46416	A3	19821208		
EP 46416	B1	19861112		
R: DE, FR, GB				
JP 57038185	A2	19820302	JP 1980-115236	19800820
JP 02034792	B4	19900806		
JP 57087987	A2	19820601	JP 1980-164974	19801121
JP 62018355	B4	19870422		
JP 57087988	A2	19820601	JP 1980-164975	19801121
JP 57087989	A2	19820601	JP 1980-164976	19801121
JP 03021356	B4	19910322		

10/789,276

JP 57102391	A2	19820625	JP 1980-179766	19801218
JP 02034793	B4	19900806		
JP 57120487	A2	19820727	JP 1981-7723	19810120
JP 02027157	B4	19900614		
US 4425405	A	19840110	US 1981-294152	19810819
CA 1186574	A1	19850507	CA 1981-384191	19810819

PRIORITY APPLN. INFO.:

JP 1980-115236	A	19800820
JP 1980-164974	A	19801121
JP 1980-164975	A	19801121
JP 1980-164976	A	19801121
JP 1980-179766	A	19801218
JP 1981-7723	A	19810120

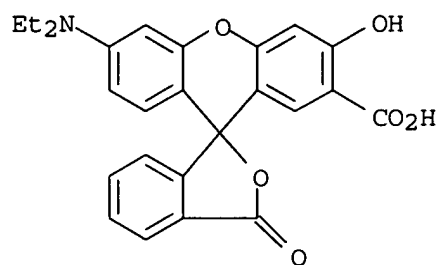
IT 6359-29-1

RL: USES (Uses)

(ink composition containing ethylene glycol and, for ink-jet recording)

RN 6359-29-1 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-2'-carboxylic acid,  
6'-(diethylamino)-3'-hydroxy-3-oxo- (9CI) (CA INDEX NAME)



AB An ink-jet recording sheet which has excellent ink receptivity and is able to suppress ink dots from spreading consists of a paper support and a composition containing an aqueous dispersion of poly(vinylpyrrolidone), vinylpyrrolidone-vinyl acetate copolymer or their mixture, and a white filler. The composition can be incorporated into the support or coated on its surface. Thus, a groundwood paper was coated with a slurry containing a 10% aqueous soln of poly(vinylpyrrolidone) and 20 weight% of clay, and then roll pressed to give a recording paper which was subjected to a recording procedure using an on-demand-type head with a nozzle diameter of 40  $\mu$ . The recorded copy has a following characteristics: optical d = 1.11, drying time (a time before the sepia color of the 7th stage was dried) = 15 s, rate area (a rate of area of recorded matter of the 1st stage in which 2 lines/mm were recorded) = 13.7%.

L6 ANSWER 91 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1981:578624 CAPLUS

DOCUMENT NUMBER: 95:178624

TITLE: Thermal recording paper

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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10/789,276

JP 56040585 A2 19810416 JP 1979-114737 19790908  
PRIORITY APPLN. INFO.: JP 1979-114737 A 19790908

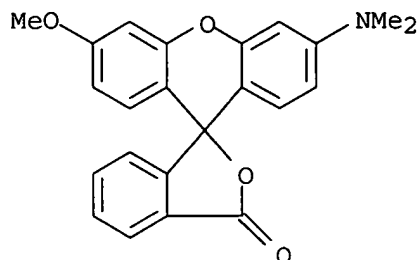
IT 26567-26-0

RL: USES (Uses)

(heat-sensitive compns. containing, for thermal recording paper,  
preparation of)

RN 26567-26-0 CAPLUS

CN Spiro[isobenzofuran-1(3H),9']-[9H]xanthen]-3-one, 3'-(dimethylamino)-6'-  
methoxy- (9CI) (CA INDEX NAME)



AB In preparing heat-sensitive compns. for thermal recording papers, the pH of  
color-former dispersion is adjusted to 8-11, and the dispersion is then  
mixed with the color-developer dispersion. This method prevents  
coloration during the mixing and coating steps; hence a thermal recording  
paper with a very low background optical d. can be produced.

L6 ANSWER 92 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1980:541030 CAPLUS

DOCUMENT NUMBER: 93:141030

TITLE: Phototropic photosensitive compositions containing  
fluoran colorformer

INVENTOR(S): Reardon, Edward Joseph, Jr.

PATENT ASSIGNEE(S): Dynachem Corp., USA

SOURCE: Eur. Pat. Appl., 78 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 5380	A2	19791114	EP 1979-300796	19790509
EP 5380	B1	19820106		
EP 5380	A3	19791128		
R: BE, CH, DE, FR, GB, NL, SE				
CA 1164710	A1	19840403	CA 1979-326323	19790425
AU 7946768	A1	19791115	AU 1979-46768	19790504
AU 523542	B2	19820805		
JP 55013780	A2	19800130	JP 1979-56880	19790509
JP 63052369	B4	19881018		
US 4343885	A	19820810	US 1980-195285	19801008
PRIORITY APPLN. INFO.:				US 1978-904145 19780509
				US 1979-97096 A1 19791123

IT 73852-10-5

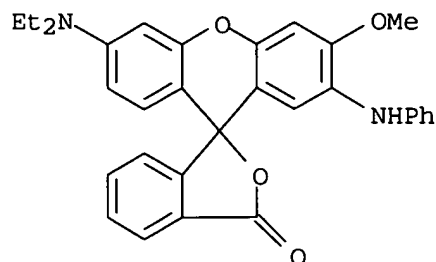
RL: USES (Uses)

(photoimaging composition containing, phototropic)

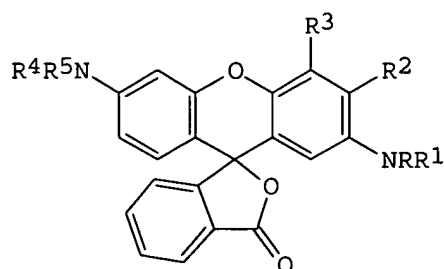
10/789,276

RN 73852-10-5 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 6'-(diethylamino)-3'-methoxy-2'-(phenylamino)- (9CI) (CA INDEX NAME)



GI



I

AB Phototropic compns. containing a polymerizable, curable, or crosslinkable component, a photoinitiator, a fluoran color-former with the formula I (R,R1 = H, alkyl, alkenyl, alkoxyalkyl, alkoxyalkyl acyl, aryl, or together form a heterocycle; R2 = H, alkyl, alkoxy, halogen, amino, aryl, aryloxy; R3 = H, alkyl, alkoxy, amino, or the same as R,R1 above; R4, R5 are the same as R,R1 above), and latent activator that releases or promotes the release of a Lewis acid are described. These compns. are especially useful in the production of dry film photoresists for use in the electronics industry to manufacture printed circuits. Thus, a typical composition

contained Acryloid A-101 60.3, trimethylolpropane triacrylate 19.6, tetraethylene glycol diacrylate 9.8, benzophenone 3.4, 2,2'-methylene bis(4-ethyl-6-tert-butyl)phenol 0.18, Modaflow 0.15, tricresyl phosphate 4.31, 4,4'-bis(dimethylamino)benzophenone 0.45, CBr3CONH2 1.51, I (R = Me; R1 = CH2CO2Et; R2, R3 = H; R4,R5 = Et) 0.3, and MeCOEt 195 parts by weight

L6 ANSWER 99 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1974:544295 CAPLUS

DOCUMENT NUMBER: 81:144295

TITLE: Radiation-sensitive recording sheet

INVENTOR(S): Yoshino, Kimiaki; Adachi, Kinichi; Shimotsuma, Wataru; Sekine, Yoichi; Shimizu, Toshio

PATENT ASSIGNEE(S): Matsushita Electric Industrial Co., Ltd.

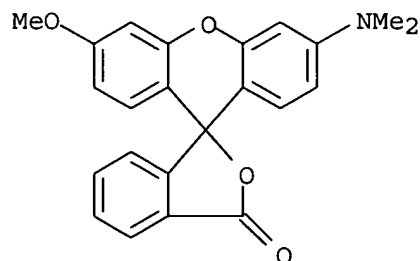
SOURCE: Ger. Offen., 27 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2359271	A1	19740627	DE 1973-2359271	19731128
DE 2359271	B2	19760318		
DE 2359271	C3	19761028		
JP 49078550	A2	19740729	JP 1972-120898	19721130
JP 51016155	B4	19760521		
JP 49133032	A2	19741220	JP 1973-32302	19730320
JP 54013990	B4	19790604		
CA 990953	A1	19760615	CA 1973-186646	19731126
GB 1445757	A	19760811	GB 1973-54946	19731127
AU 7362998	A1	19750529	AU 1973-62998	19731128
NL 7316317	A	19740604	NL 1973-16317	19731129
NL 165413	B	19801117		
NL 165413	C	19810415		
FR 2209330	A5	19740628	FR 1973-42544	19731129
US 3905876	A	19750916	US 1973-420601	19731130
SU 562220	D	19770615	SU 1974-1992476	19740117
PRIORITY APPLN. INFO.:			JP 1972-120898	A 19721130
			JP 1973-32302	A 19730320
IT 26567-26-0				
RL: USES (Uses)				
(electrosensitive color-forming compns. containing copper iodide and, for recording)				
RN 26567-26-0	CAPLUS			
CN Spiro[isobenzofuran-1(3H), 9'-[9H]xanthen]-3-one, 3'-(dimethylamino)-6'-methoxy- (9CI) (CA INDEX NAME)				

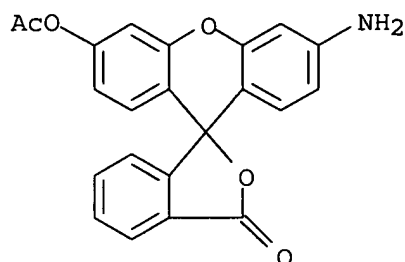


AB For producing records by a stylus electrode on a sheet rendered conductive by CuI, a color reaction occurs in a heat-sensitive layer of a leuco dye with a phenol or organic acid or of a metal salt with a color reagent. The recording voltage can be reduced if the surface resistance of the Cu is lowered by additives, such as 0.05-0.2% I or an oxidant. Thus, CuI 100 and CHI<sub>3</sub> 1 part were ball-milled 48 hr in 1% aqueous poly(vinyl alc.) 100 parts. Sep. 30 parts each of Fe stearate and gallic acid were ball-milled for 24 hr in 10% aqueous polyvinyl alc.) 100 parts. The CuI dispersion 100 parts was mixed with a 1:1 mixture of the 2 dispersions 30 parts and coated on paper as 15  $\mu$  layer, dried, and yielded sharp dark gray records on a light yellow background with a reflection d. of 0.8 at 300 V.

L6 ANSWER 105 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1963:3591 CAPLUS

10/789,276

DOCUMENT NUMBER: 58:3591  
ORIGINAL REFERENCE NO.: 58:602b-d  
TITLE: Reversible bleaching of solid layers of xanthene dyes  
in hydrazine vapor  
AUTHOR(S): Vartanyan, A. T.  
SOURCE: Zhurnal Fizicheskoi Khimii (1962), 36, 1890-6  
CODEN: ZFKHA9; ISSN: 0044-4537  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable  
IT 100272-43-3, Fluoran, 3'-amino-6'-hydroxy-, acetate  
(preparation of)  
RN 100272-43-3 CAPLUS  
CN Fluoran, 3'-amino-6'-hydroxy-, acetate (7CI) (CA INDEX NAME)



AB cf. CA 50, 7591g, 16383gi, 16393e. Reversible bleaching by N<sub>2</sub>H<sub>4</sub> vapor of solid layers of Acridine Red, Pyronine G, Rhodamines S, B, 3B, G, 56, and 66 applied on quartz plates by precipitation from alc. solns. or by distillation in vacuo was studied by the changes in the absorption spectra. The results showed that decoloration was independent of the sign of the ion of the xanthene dye (cf. CA 56, 7468f). The absorption spectra of the solid layers of colorless compds. formed by N<sub>2</sub>H<sub>4</sub> vapor and Rhodamine dyes exhibited bands with maximum at 232-238, 265-276, and 302-317 mμ. The position of the peaks depended on the end groups NMe<sub>2</sub>, NH<sub>2</sub>, NH<sub>2</sub>Et, or NHMe. Exposing the colorless layers to the air decomposed the product and the original colored compound was restored, but the maximum of the spectra shifted by .apprx.10 mμ toward shorter λ. The dye was only partially regenerated. The new product appeared to be a solid solution of the original dye in the colorless compound Rhodamine 66 + N<sub>2</sub>H<sub>4</sub> was the most stable compound. It could be distilled in vacuo at 100-20° without decomposition. On the other hand, compds. of Rhodamine S and Sulforhodamine B with N<sub>2</sub>H<sub>4</sub> decomposed, even in vacuo. The results suggested the following formula for these compds.: A<sub>3</sub>CN<sub>2</sub>+H<sub>4</sub>Cl-, where C is the central C atom of the dye.

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	525.44	688.70
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-77.38	-77.38

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